

GREEN'S FRUIT GROWER

The Oldest Fruit Journal in America



Rochester, N. Y.

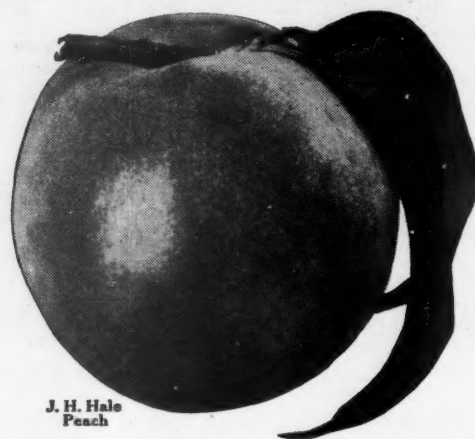
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November, 1916

Green's Fruit Grower



Mr. Frank Dorr, Wasco, Cal., and his J. H. Hale Peaches

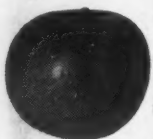


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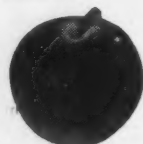
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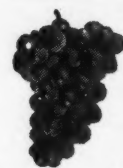


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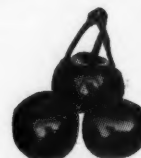
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The Oldest
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GREEN'S FRUIT GROWER

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Essentials of Successful Fruit Growing

By PROFESSOR U. P. HEDRICK

Horticulturist, New York Agricultural Experiment Station, Geneva, N. Y.

The Site.—All subsequent efforts fail if a mistake is made in selecting the site for operations. In growing fruit for the market certain economic considerations imperatively demand attention; as distance to market, means of transportation, labor, storage, competition, disposition of by-products, cost of production, and over-production. Any of these may prove a determinant of success. "The weakest goes to the wall" applies in the business of growing fruit as well as in other business enterprises. In growing fruit for home use, these economic factors may be ignored. There are natural factors, however, which must be observed in growing fruit for either home or market.

The first of these is latitude. A man must select fruits, and even more particularly varieties, with reference to latitude and its equivalent, altitude. It is easy enough to select the fruit for a region in a certain altitude or latitude but it is far from easy to select the varieties of a particular fruit, says N. Y. State Bulletin, No. 50.

Soils.—The soil largely determines the value of a location for a fruit plantation. Special fruits have special soil adaptations: The peach grows on sand; the plum on clay; apples and pears on loams. Individual varieties of any fruit also do better in some soils than in others. The fruit-grower must discover what these preferences are. It is as difficult to select trees as it is to make a choice of varieties. Every precaution should be taken in buying to insure trees true to name and free from pests.

The Plan.—Planting in squares is best because it permits orchard operations to be carried on most readily. Both roots and branches will utilize all of the space. Fillers of fruits other than varieties of the same species as the permanent trees are not desirable, since they greatly complicate orchard operations. Fillers of quick bearing varieties of the same fruit, especially the apple, may often be used to advantage. There should be as many "outside rows" as possible. That is, the trees should be far enough apart for each to develop in full its individuality, as the trees on the outside of the orchard produce most fruit, since they get most air, sunshine, wind, moisture and food. Fruit does not set in this region for the most part because of frosts, cold weather, rains and heavy winds at blooming time; but still there are some varieties of pears, apples, grapes and plums that are self-sterile. The remedy is mixed planting of varieties that bloom at the same time. There is a marked gain in setting varieties of apples late in the fall if the trees be two-year-olds.

Pruning at Transplanting.—We are ready to set the tree and the problem of pruning is before us. It is necessary to cut away part of the branches to enable the injured root system to supply the remaining branches with water. The less the roots are injured the less the top need be cut away. The common way is to cut back all of the branches. This, in many cases, is wrong. The top buds on a branch develop soonest and produce the largest leaves. A newly set tree will grow best if it can develop a large leaf surface before dry, hot weather sets in, and this it will do if some branches are left intact. Therefore, instead of shortening in all branches, cut away some of the branches entirely. The tree so pruned will start growth and acquire vigor more quickly.

Pruning for Wood.—If a tree is bearing many small fruits, if the top contains dead or dying branches, or if the seasonal growth is short and scant, it may be taken for granted that the tree lacks vigor; or, in old trees, is passing into decrepitude. Such trees may usually be rejuvenated by judicious pruning. In professional terms the tree must be "pruned for wood." Such pruning consists in cutting back a considerable number of branches and in wholly removing others. In pruning for wood the following rules are usually applicable:

Weak-growing varieties may always be pruned generously; strong-growing kinds, lightly.

Varieties which branch freely need little pruning. Those having unbranching limbs should be pruned closely.

In cool, damp climates trees run to wood and need little pruning. In hot, dry climates they need much pruning.

Rich, deep soils favor growth; prune trees in such soils lightly. In shallow, sandy soils, trees produce short shoots, and the wood should be closely cut.

Pruning for Fruit.—A barren tree can sometimes be

amputation should be made only under dire necessity. One of the secrets of the healing of large wounds is to cut close to the trunk, and no matter how large a wound may be it is better than leaving a projecting stub. The chances for healing with a large wound are materially increased by a coating of thick lead paint to protect the cut surface from evaporation and moisture.

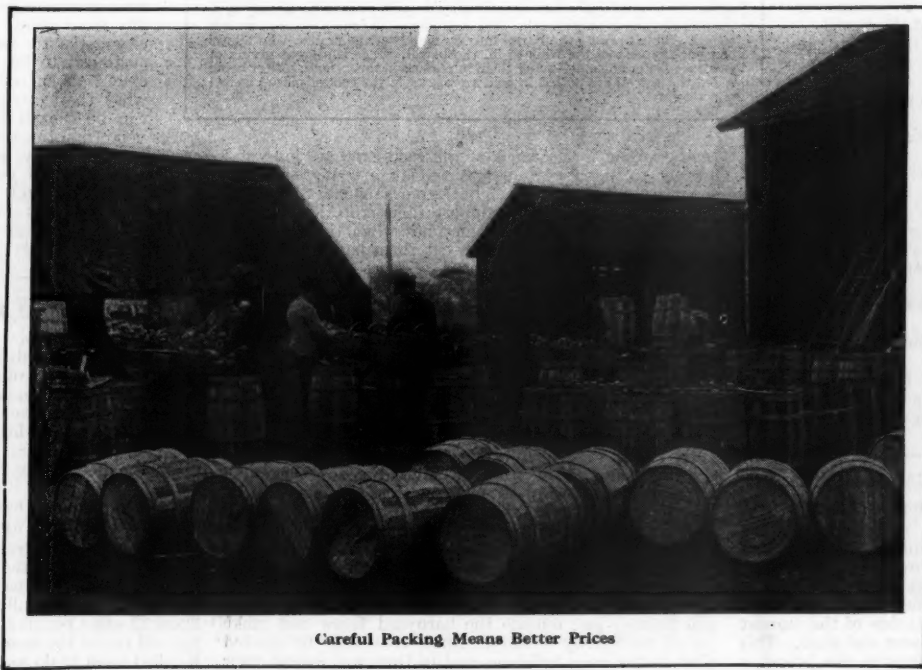
Time to Prune.—The best time to prune is late winter before the sap flows. The objection to early winter pruning is that there may be injury to the tissues near the wound from cold or from checking. Late spring pruning results in loss of sap and the fluids run down the bark and keep it wet and sticky, making a suitable place for the spores or various rot fungi so that decay may set in. In practice it is often found necessary to prune from the time leaves drop until they are well started in the spring.

Cultivation.—Cultivation is generally practiced with all fruits except the apple. Some claim that this fruit can be grown better in sod; in which case the grass may be cut as a mulch or it may be kept down by sheep, pigs or cattle.

Fertilizers.—In the average western New York tilled apple orchard, if it be well-drained, well-tilled and properly supplied with organic matter from stable manure or cover crops, commercial fertilizers are little needed.

Cover Crops.—The best modern practice insists that a cover crop be sowed at the close of the season's cultivation, about August first, to be plowed under the next spring. Various crops may be sown alone or in combinations. The several purposes of a cover-crop—to cover the ground, and add humus and nitrogen—are usually best served by a combination crop. Spraying is indispensable but the fruit-grower can so plant as to avoid some of the warfare with pests.

Mice and Rabbits.—It is necessary to protect young trees from mice and rabbits. The best protection against mice is a mound of earth about the tree several inches high, thrown up in late fall and removed in early spring. Wire netting is the best protection against rabbits. When injury has been done the trees can often be saved by bridge-grafting.



Careful Packing Means Better Prices

made to bear fruit by proper pruning. Not infrequently barrenness is caused by over-manuring or over-stimulation of some kind, because of which the number of shoots and leaves are greatly increased, but flower buds do not form. This over-production of wood and leaf can sometimes be stopped by breaking or cutting off the greater portion of the season's growth in the summer.

The Cut.—The cut in pruning should always be made parallel with the trunk, as close as possible, and just beyond a healthy lateral branch. The reason for so cutting is plain. The lateral branch is stimulated to produce a great number of leaves which assimilate sap. This elaborated food passes back through the inner bark near the newly made cut and the wound quickly callouses and heals because it thus has access to an abundant supply of food.

Wounds over three inches in diameter seldom heal; decay sets in and there soon follow rotten wood, a hollow branch and a diseased tree. The life of a tree is endangered whenever a large branch is removed, and such an

Use High Grade Stock

Your fruit trees and bushes, your crops, your animals are the machines of your farm manufactory. Are they efficient? Do they return you the biggest profit on the raw material and labor spent on them? You must see that your machinery of production is worthy of your time and labor. Low quality, non-guaranteed trees may look cheap, but they take as much room, time and work as the fine kinds, says American Fruit Grower. They return much less. Common seed takes everything that good seed takes, but it yields much less. Scrub cows eat the same amount of food and take as much attention, but they don't give the milk and butter as do the fine breeds. It is bad business to work with inefficient equipment. Other manufacturers often scrap hundreds of thousands of dollars of good machines to install others that give better results for the same effort. You can save money by scrapping your lowgrade stuff. Get the best you can afford. It pays.

Growing Fruit For Big Prices and Profit

Written for Green's Fruit Grower By
JOHN E. TAYLOR

A man in Somerset County who owns an orchard of Northern Spies, for the past eight or ten years has sent from eight to twelve barrels of apples of these Northern Spies to Boston every year and he has not received less than \$5.00 per barrel in any year. Faced on the bottom of the barrel, faced on top and clear to the head, with large beautiful apples, highly colored, and nearly all of one size. The sight is indeed a glorious one. When such fruit reaches Boston there is no difficulty in getting almost any price. In order to secure these high prices we must produce better apples. How are we to do this? When you hear of a large crop of corn reported, you know that the ground must have been properly prepared, enriched and tilled, all through the season. Just so with the orchard. We cannot neglect it and get any satisfaction out of the business. How do they raise oranges in Florida? By setting trees on some worn-out land and then neglecting them? No. There is no success in that. They buy land under the most favorable conditions, situated by a lake or a river, covered with forest. Often it is land costing \$100 per acre. They cut off the forest, clear the land, set the orange trees, and then a man and a mule work year after year on each acre. If such an orchard is neglected for two or three years, it results in the loss of nearly the whole plant. If we should undertake orcharding here in Maine on that scale, investing anything like what they do with the orange grove, and give equal care what wealth could be obtained.

Stay on the Farm

"Daily mail, telephone, good roads, machinery to do the hard work, modern heat, light and waterworks for the house are some of the luxuries of today. Today farming is as much of a profession as the law, or medicine or teaching or any other business that requires special training or special knowledge. We have schools and colleges that are intended to teach farmers. The State and the general government maintain experimental farms and departments that are continually making experiments.

"So we come to the question, Why do young men leave the farm and should they leave the farm?

"Why they leave the farm—1. This is an age of unrest. We do not stop to think that our present prosperity and happiness depend upon what our fathers and our grandfathers have done. Changes are looked upon as improvements.

"2. Some young men have a special leaning towards other business.

"3. They become dissatisfied with their present surroundings. They see the difficulties of the business in which they are engaged, but do not appreciate the difficulties of those with which they are not acquainted.

"Should they leave the farm? No. Why?—1. Farming is the most independent life. Farmers are their own masters.

"2. No business in which you get so large a return for the investment.

"3. No business in which you find so many leisure hours.

"4. No business in which success is so assured.

"5. No business in which there is a better chance to go.

"6. Educate yourself to learn all you can about the business."—Rochester Herald.

Winter Care of Bush Fruits

Currants and Gooseberries

Both of these fruits have stood without injury the extremes of low temperature and drying winds which prevail in the northern Great Plains region. These fruits, therefore, need no protection against the cold or winds of winter, says U. S. Bulletin. Sometimes, however, in regions having a heavy snowfall, branches of the currant are broken down by the weight of snow and sleet. This danger may be easily avoided by drawing the branches together and tying them with coarse string. The tying may be done at any time after the leaves fall, but it is better to do this about the time the ground begins to freeze.

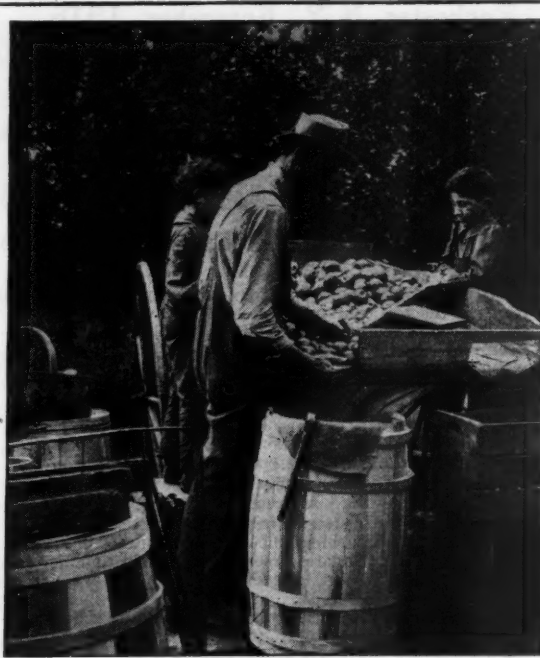
This period between the falling of leaves in autumn and the starting of growth in spring is the season in which currants and gooseberries are pruned. The ideal currant bush at which the pruner should aim has six to eight main branches, while the gooseberry has eight to twelve. None of these branches should be over 3 years old. Two or three of the main branches of the currant and three to four main branches of the gooseberry should be removed each season, the older branches being cut out and a like number of the most vigorous canes of the currant season's growth left to take their place. All other young canes and all canes bent to or near the ground should also be removed. If this system is followed each year after the bushes reach the age of 3 years, pruning will be relatively simple and the plantation kept in good condition.

Raspberries and Blackberries

Raspberries and blackberries need winter protection

in many parts of the North where low temperatures and drying winds prevail, especially where the snow covering is light. Certain varieties need protection, while others endure the same conditions without injury. Experience will indicate which varieties need this.

Usually no pruning is given either the raspberry or blackberry just before or during the winter. When the canes are to be protected with soil, however, all the weaker canes, as well as stronger ones not needed for the crop the following season, should be removed. This thinning out of the canes will reduce the cost of covering.



It has in past years been the practice of many apple growers to pick the apples and place them in piles upon the ground where they were often left for several weeks, deteriorating every day when thus left. The modern practice is to place the apples upon a sorting table as soon as picked, as is shown in the above photograph. The reclining table causes the fruit to roll down the table towards the barrel into the hands of the grader, who allows none but the best of the fruit to fill the barrel. This is a great saving of labor over the practice of leaving them in piles upon the ground. After being headed the barrels are placed in cold storage or in the coolest place possible upon the farm.

In the spring if the canes of the raspberry are long and are not to be supported by stakes or a trellis, the ends should be cut back. If cut back to a height of 3 feet, the canes should be able to support their crop, keeping the berries out of the dirt. Sometimes when the canes are slender it will be necessary to cut them back to 2½ feet in length. The side branches of the blackberries are usually pruned back in early spring. The length at which the lateral branches should be left depends on the habit of the variety. In some sections and with some varieties no pruning at this time is necessary, and experience in each locality must be the guide as to this.

Fruit in Nooks and Corners

By D. H. MORRIS, Mich.

By taking thought a farmer can frequently grow a considerable amount of fruit on unused spaces near the farm buildings. A few large cherry trees can be grown by the driveway. These will afford shade and supply bushels of fruit that will find a ready market. Plums, pears, cherries and quinces can be grown in the hen yard without cultivation. The verandas and porches on the house can be used for grape vines, affording shade in summer, and acting as a windbreak in winter. Pear and peach trees will flourish just outside the barnyard fence and make use of the nearby fertility. Apple trees may be planted close to the farm buildings and in time will extend their roots beneath them and thus utilize the ground. If the branches are not allowed to lie closely to the roofs they will do no harm. The roadside can be planted to fruit trees, from which some profit may be derived outside of the fruit taken by the passerby. The writer has cherry trees along the roadside and has never suffered any considerable loss. A row of currants may be set along the backyard fence, which is too often used as a dumping ground.

On most farms there is land enough without taking into account the nooks and corners, but to the thrifty farmer there is special satisfaction in raising crops where nothing grew before and thereby adding to the value and attractiveness of the farm home.

"With malice towards none, with charity for all, with firmness in the right as God gives us to see the right, let us strive to finish the work we have begun."

—Abraham Lincoln.

Thanksgiving day will soon be here. Is the turkey ready?

Winter Food for Birds

There is probably nothing much better than a lump of suet. It is eaten by almost any bird with seeming relish; it is easily procured, and easily fastened to the shelf. One of its great advantages is that it does not freeze too hard. Even a chickadee, with its tiny beak, can get a meal from it on the coldest of days. On the whole, it is by far the most useful food for the birds' winter larder. Always fasten the suet securely. Otherwise, the jays will carry it off. Nuts are much appreciated by most birds, and, as they cannot be fastened one by one, it is best to break them in such small pieces that they must be eaten on the spot. Peanuts have the double advantage of being cheap and easily broken, and are therefore the most useful of the nuts. Ordinary bird-seed appeals to the sparrows and finches. The meat of the coconut is liked by most of the winter birds. With a large piece of the shell broken from one side, the coconut may be conveniently hung from the piazza ceiling by means of a wire.

Among the birds that may be your guests are the chickadee, nuthatch, both white and red-breasted, tufted titmouse, golden-crowned knight, junco, white-throated sparrow, brown creeper, tree-sparrow, winter-wren, downy woodpecker and the bluejay. Of these, the chickadee, downy woodpecker and nuthatch are the most confiding, while the bluejay and, usually, the white-throated sparrow are the most suspicious. Both chickadees and nuthatches, with a little coaxing, will take food from one's hand. It will not take long for the observer to discover that the bluejay, with his fascinating briskeness, is the bully of the birds. When he wants to eat from the shelf, all the others must, or do, make themselves scarce. Few are bold enough to contest his absolute right of way. Almost as soon as he comes within hearing, the other birds leave, and usually do not return until he is well out of the way. Chickadees and nuthatches will feed together in perfect harmony, with occasionally a downy woodpecker to keep them company. One soon learns to recognize different birds, and then it is that we realize how strong is the individuality even of the smallest of them.

Of the animals that we can coax about our houses, the gray squirrels seem to be most satisfactory. Put nuts in convenient places, and they will make frequent trips for supplies, but only on comparatively mild days will they remain long outside their comfortable winter quarters, where they usually have plenty of food stored. In many of our city parks the gray squirrels have become so accustomed to being fed that they have, to a great extent, given up storing food, and rely chiefly on what they can pick up each day. Red squirrels can be coaxed by means of food, but they are very questionable fellows; in fact, the general opinion is decidedly against them, owing to their partiality for eggs and young birds. Chipmunks hibernate in their underground homes, so we cannot count on them for winter visitors. The cotton-tail will condescend to accept green vegetables, but he comes almost entirely at night.—F. H. Sweet.

The Farm Tractor

The advantages of tractor farming over the universal method are manifold. The investment required in the up-to-date farm or ranch for power as supplied by the modern tractor, is much less than in horse equipment. The most modern tractor really replaces \$1,000 worth of horses, and costs but little more than one-half that amount, says Farmer's Guide. It is designed to haul the gang plow, the disc, the harrow, or the seeder, that the horses hauled. The hours that were spent morning, noon and night in grooming these horses may be turned to good account in the field with the tractor.

The speed of the tractor is maintained at the maximum early and late. In the plow furrow the best team would not average more than 20 to 23 or 24 miles per day. The little tractor, pulling the same load, will travel 27 to 32 or 33 miles per day, day after day, and the same tractor will travel the same number of miles during the night if called upon to do so.

The universal tractor of today serves a dual purpose. It takes the place of the horses in the field work and supplies a stationary power plant for ensilage cutting, operating a light separator, huller, hay press, wood saw, and the numerous tasks for which the farmer has previously been compelled to maintain a special power plant at a cost approaching, if not exceeding, the cost of his light tractor. The light, proficient tractor denotes progress. It is just as much a part of the up-to-date farm equipment as the automobile, and a hundred times more practical. The tractor is almost a necessity, and from the standpoint of dollars and cents in revenue, it is an absolute necessity. Its capability is so much greater than the equal horsepower in horseflesh, that the owner is able to take advantage of weather conditions which might otherwise spell disaster. Horses in harvest are subject to most inhumane treatment, and if this is not true, then the crop is in danger. The tractor can be run from the time the dew is off the grain in the morning until the dew comes again at night, and thousands of farmers can testify that their crops have been saved from shelling by the use of a tractor in harvest.

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Protect Trees from Rodents

Written for Green's Fruit Grower By
J. S. UNDERWOOD, III.

One of the most important operations to be performed in the young orchard before winter arrives is to provide protection for the young trees from rabbits and mice. The injury wrought every winter by these rodents is great and if the loss sustained could be named it would be appalling. The loss, however, is preventable by the employment of proper measures at the proper time.

While rabbits usually do most of their damage to the young trees late in the winter or early in the spring, there are seasons when they are destructive to the trees through most of the cold weather. In severe winters when the snowfall is heavy throughout the season, they may make an early start of their gnawing and girdling. Rabbits do not as a rule attack the bark of young fruit trees until their natural supply of food is exhausted or frozen up so they cannot get to it. There is danger of the rabbits beginning to cut into the bark of the trees at any time when a heavy fall of snow remains on the ground for ten days or two weeks. Rabbits are forced to look for food when there is a deep snow that freezes and crusts on the surface and the young orchard is the most likely place for them to find something to eat.

Under a system of clean cultivation there is not the same danger of injury to young trees from mice as there is from rabbits. Cover crops and weeds provide homes for them and increase the dangers of girdling. They gnaw the bark off under the snow where there is a crust of snow that remains on the ground for several days. If the weeds and rubbish are cleaned away from the tree in the fall and no mulch or grass is allowed closer to the tree than eight or ten inches, and the snow is kept packed firmly around the trunks, conditions are thus made unsuitable for the mice and considerable injury may be avoided. A mound of earth from eight to ten inches high packed closely up to the small trunk will often divert the mice when they are burrowing through under the snow. The mound will also help to protect the tree from the cold.

I have seen young and tender twigs cut from the branches of trees and allowed to remain on the ground. These the mice and rabbits will devour, leaving the tree untouched. This, however, is not a trustworthy means of evading trouble. The ordinary lime and sulphur solution which is so widely used for spraying will help in preventing injury from rabbits, as will also a thick mixture of blood and ashes rubbed on the trunks. This latter preventive gives good results but the difficulty is in obtaining the blood. As protective agents, paints have some value. Ready-mixed paints, however, should not be used as they might contain ingredients which would be destructive to the trees. If one is going to use paint he should get the pure white lead and raw linseed oil and do the mixing himself.

Of all the protective agents, however, I prefer using some of the devices that are now so widely used in orchards. Some of the wood veneer strips, in fact, most any of them will give just about perfect protection from both rabbits and mice. There are a number of these to be found on the market, made especially for the purpose of protecting young trees. It will cost about one cent per tree to buy them and put them on the trees. It is hard to estimate exactly what a young fruit tree is worth and it is certainly the part of wisdom to spend a cent or even two cents per tree in protecting them against the ravages of rabbits and mice.

Building paper or any kind of coarse paper makes a good protective, except tar paper which has been known to cause injury to the tree. Wrap the paper around the tree trunk, not too tight, but be sure that it connects closely with the ground. Around the bottom pack a little soil. Newspapers even have been used with good success. When applying them start with one corner and low enough down that the paper will wrap the tree well down to the ground. After the rolling is done the operator will finish with the opposite corner. This does not allow the wind as much opportunity to get under the edges and tear the paper off. Tie in three places with soft twine. Wire cloth or wire screening is also good to protect the trees. Cut the wire in strips about five inches wide and two feet long, wrap around a hoe handle so as to make long open-sided tubes that will spring around the trunk of the tree, and tie them with soft twine. In the spring when danger from rodents is passed, all the protectors must, of course, be removed from the trees.

Burn all brush and rubbish in the orchard.

Choosing a Farm

Between now and the next crop season many farmers will choose new farms. Each step must be more carefully taken than ever before on the ladder whose rungs are the positions of hired man, tenant, mortgage owner, debt-free owner and improving owner. Without such help as that of a wealthy father, it is no longer so easy to reach the top of this ladder without climbing the lower rungs as it was when land of virgin fertility could be bought for as little as \$1.25 an acre.

In fixing the cash values of land the renter or purchaser should be careful not to confuse economic with social or aesthetic factors. Unusually desirable houses, barns, and fences may add to the cost of land out of proportion to the addition to their earning power and the buyer must consider whether he can afford certain things which bring great pleasure and satisfaction but no money return. Nearness to town and market similarly raise the price, partly for social reasons, partly because they make it possible to market more cheaply and to market certain products which could not be grown profitably farther from town.

Fertile land is the great essential in farming but a question often raised is whether it is better to buy only the best land or to buy poorer land and build it up by applying the discoveries of the experiment stations and of the most successful farmers.

The personal preference and ability of the buyer must be considered in determining whether to buy a small farm at a higher price per acre and whether to buy only very fertile land with a view to producing only crops or to buying a mixed farm with some rough, well-drained portions for permanent pastures for live stock. Numerous other factors must also be considered, including the supply and price of labor, kind of neighbors and nearness to schools, grange and church.—F. B. Mumford, Dean of Missouri College of Agriculture.

Reducing Cost of Growing Orchards

Reduce the cost of production. That is the slogan the would-be successful fruit grower must borrow from the industries into which close competition entered much earlier than it has in agriculture. Of course, we must learn better selling methods, too; but we still have much to learn in the way of reducing the cost of production. We must not so fix our attention on the dollars the middlemen are pocketing as to fail to see the gold which our own plow shares expose.

Let us continue to plant peach and apple trees in sane numbers. Our population is increasing; the per capita consumption of fruit is also increasing. There will always be a demand for good fruit. Prices, however, will probably not be high; so we must get our orchards into bearing at less expense than we have in the past.

Young orchards must be cultivated. Fertilizer should be used. Peach trees do not require all the land for two or three, apple trees for five to eight years. Land, fertilizer and cultivation—by-products in the manufacture of an orchard. Turn them to account. Make them pay their way. Inter-crop, says Pennsylvania Farmer.

Some of the western fruit growers may be able to produce orchards without the use of fertilizer, but the eastern grower has the world's best markets at his door. He can grow crops among the trees which will pay for the fertilizer and cultivation besides.

The chief requirements of a good orchard inter-crop are:

1. That it be tilled the first half of the season only.
2. That it be an annual.
3. That it does not check the growth of the trees.
4. That it does not interfere with spraying and other necessary work upon the trees.
5. That it be profitable.

Sometimes it is not practical to grow the so-called ideal

inter-crop for orchards. In that case other crops may be grown; and, while the trees may be injured somewhat, the ultimate profit may be greater than if no crops were grown. In one very fine apple orchard in Monmouth County asparagus was used as an inter-crop. In Burlington County a successful peach grower plants three rows of strawberries between his peach trees at the time of planting. The strawberries cannot be cultivated very much after the first year, yet they are cropped for three years and the trees seem to suffer very little. This grower, however, has very rich soil—soil which his neighbors told him was too rich to grow peaches. A successful apple grower in Middlesex County grew horse corn for four consecutive years in a young apple orchard, and the trees made a fine growth. The land was naturally strong, he fertilized heavily, sowed clover at the last cultivation and did not plant the corn close to the trees.

In the final analysis the grower's knowledge, his markets and the character of his soil will determine the most suitable inter-crop for his orchards. Only general notes and hints can be given by another. The chief thing is to get an orchard of good, strong, well-formed trees at the bearing age at less expense than the other fellow.

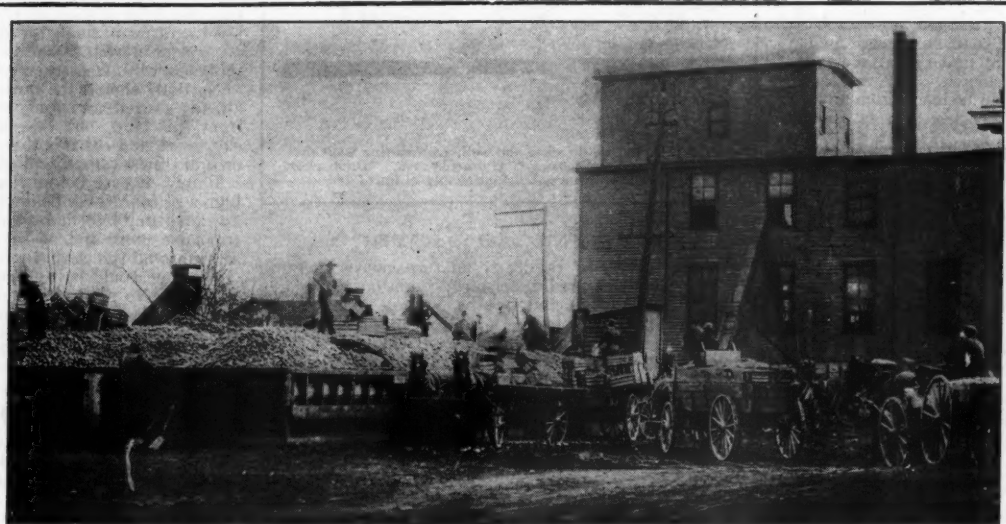
Lime Not to be Used During Winter

While it is better to use lime on acid soils at any time of the year than not to apply any, soil specialists at the Ohio Experiment Station recommend that this material be used after plowing for some cultivated spring crop. The lime can then perform its full function in promoting the growth of the bacteria that grow on clover roots.

These countless bacteria, so helpful to clover crops, work only in the dark and require both water and air for their existence. Also, they can live only in soils either naturally or artificially supplied with lime.

Lime spread on the surface and not stirred into the soil can help the bacteria but little. They would die there for lack of moisture, and the lime would be dissolved and carried into the soil only after a long time. Lime plowed under is also out of reach of the bacteria, which live chiefly in the upper three or four inches of soil where air is plentiful. Hence, applying lime after plowing in the spring and mixing it by cultivation into the soil during the summer make conditions most favorable for the clover crops later.

A good supply of home grown fruit is worth while and a pleasure and profit in fruit production. Every farmer should grow his own supply.



Photograph of a vinegar factory at Medina, near Rochester, N. Y. Notice the thousands of bushels of apples and the loads of apples just arriving. There are many other ways of making use of cull apples in this great apple region.

Cider Vinegar

If you have plenty of apples, you can have home-made cider vinegar at a very trifling cost, and if well made, it will find a ready sale in your own neighborhood, as many people will buy a small quantity rather than bother with more than is needed. The Agricultural Experiment Station, Geneva, New York, has issued a bulletin for free distribution, which contains many interesting details. The number of the bulletin is 258 and is the result of seven years of investigation. If the cider is not properly made and handled, however, the vinegar may easily fall below the standard, through failure to reach the required acidity, or through deterioration after the acid has been formed. Only sound, ripe apples should be used, avoiding dirty fruit, washing before pressing; only juice from the first pressing should be used, placed in clean barrels which have been treated with boiling water or steam to destroy all germs.

The barrels should not be quite full, nor tightly corked, as free access of air is desirable. In ordinary cellar temperatures, the first stage, the alcoholic fermentation, should be complete in five or six months, but by storing in warmer rooms, and by the use of yeast, the time can be much shortened. The second stage, the acetic fermentation, may be hastened by heat and the use of a good "starter" of "mother," or sharp vinegar. When the required acidity is reached, the barrels should be filled to the bung and corked tightly to avoid undesirable fermentation.

Many persons who have orchards use any and all kinds of apples both for cider and vinegar; but if one is at all particular about "quality" of such things, all wormy and rotten apples should be fed to the hogs, or otherwise destroyed. One does not like to feel that food stuffs are preserved in "bug juice."

Evaporation of Apples

By H. P. GOULD, U. S. Department of Agriculture

Farmers' Bulletin 291, as summarized for Green's Fruit Grower

The utilization of the poorer grades of fruit is frequently an important matter to the grower. That portion of a crop which is of too low grade to market in the ordinary way can often be made to pay a large part, at least, of the expense of maintaining the orchard or fruit plantation if it is converted into some other form or handled in some way other than that practiced with the better grades. In some of the older apple-growing sections, such as western New York, the number of evaporators in use is very large, and for many years the industry has been well established.

A large quantity of fruit, in the aggregate, is still dried by primitive methods. In rural communities, especially where the "home orchard" represents the extent of fruit growing, one often sees during the autumn a flat-topped rock, the roof of some low, easily accessible shed, or other flat surface on which have been spread apples, sliced or quartered, for drying in the sun. In some sections "strings" of quartered apples hanging by a doorway to dry, or behind a kitchen stove, are still familiar sights.

While much of this sun-dried fruit is intended for home use, large quantities of it are marketed, and it is also exported to some extent. This fruit is commonly referred to as "dried apples," in distinction from that handled in evaporators, which is known as "evaporated apples."

Many types of evaporators are now in use. These are, Cook-stove evaporators, Portable outdoor evaporators, Kiln evaporators and Tower evaporators.

There is an increasing demand for dried apples of the highest quality. The tendency has sometimes been to make quantity at the expense of quality. But prices are governed not only by the supply but also by the grade. The cleanest, whitest fruit, that is well cored, trimmed, bleached, ringed and dried, is most in demand. Carelessness in any particular injures the product.

The commercial grading of evaporated apples is based primarily on appearance rather than on dessert quality, and the fact that one variety may make a better flavored product than another is not considered. As a rule, a product of high commercial grade can be made from any sort which has a firm texture and bleaches to a satisfactory degree of whiteness.

The average weight of ripe winter apples of mixed varieties is about fifty pounds to the bushel. In evaporating them about forty pounds of water per bushel, or approximately five gallons, passes off in the form of vapor. The evaporating of apples may be said, in brief, to consist of driving off as rapidly as possible, by means of artificial heat, enough of their moisture to prevent deterioration through decay or other natural processes which occur in fresh fruit and at the same time to maintain a desirable texture and flavor.

The market price of whole apples is usually a cent or more a pound higher than that for sliced fruit; quarters also bring a higher price. In cases where special pains are taken in trimming and in other processes in preparing the fruit and the finished product is particularly white and clean, better prices than the prevailing market rates can often be obtained.

Western New York Peach Crop, 4000 Cars

Western New York's big peach crop is marketed. Buyers have been busy operating, paying good prices for the best Elbertas. Sales have been reported as high as \$1 per bushel. William Britton, one of the big growers of Greece, sold his crop, estimated at 10,000 baskets, at that price. The fruit was of excellent quality, being larger, less watery and of better flavor than last year, says the Packer.

While the crop was not so heavy as a year ago, it will bring a larger return to the growers. Last year markets were glutted and prices ruled so low that many growers did not pick all their fruit. This year the deal opened auspiciously, although a threatened railroad strike scared both growers and shippers. A little inconvenience was caused, to the movement of early peaches, but a good many cars of Carmen's went out. For the next two weeks the Elbertas and Crawford had the call.

Niagara, Monroe, Wayne and Orleans counties have the bulk of the peaches. Niagara county has about 65 per cent of a crop, it is estimated, while Monroe has between 58 and 60 per cent. Orleans has between 65 and 70 per cent and Wayne county around 67 per cent of a crop. Other counties have smaller yields, Yates county having only about 18 or 20 per cent of a crop.

It is expected that shipments will aggregate 4,000 cars, compared with over 4,500 last year. Of the total, Niagara,

Monroe, Wayne and Orleans counties will ship the bulk. It is expected that peach trains will carry the bulk of the crop in the next two weeks. New York city is the largest distributing center.

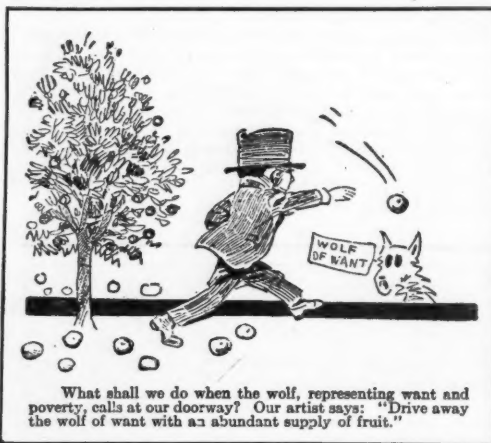
Tillage in the Orchard

There exists more or less confusion in the minds of some orchardists regarding the relative merits of tillage and the use of the sod mulch in the orchard. The New York Experiment Station at Geneva has concluded a ten-year comparison between the two methods. It has found that the tilled orchard outyielded the sod-mulched orchard by forty-seven bushels of apples to the acre, says American Fruit Grower.

It was noted that the leaves of tilled trees came out three or four days earlier and remained longer.

While it cost \$31.75 less to grow and harvest an acre of sod-mulched apples, the difference in yield between the two plots gave the cultivated acre the better of the bargain by a net \$66.

In orchards located on steep hillsides, or on land covered with rocks, sod mulching shows up to better advantage than tillage. In any case the soil must be deep and retentive of moisture to make the sod-mulched orchard a success.



Farm Apple Storage

Dipping apples in Bordeaux mixture causes them to keep better when stored under farm conditions, according to experiments conducted by the Vermont Experiment Station. The effect of the Bordeaux mixture is to prevent decay, which it does, no doubt, by killing the fungi on the skin of the apples. This treatment also helps to preserve the flavor of the fruit. Copper sulphate, lime-water and paraffin were also used as dips, but none were so effective as Bordeaux mixture. In these experiments, various materials were used in which to pack apples, including sawdust, cork and paper. But most of the materials, though keeping the fruit cooler, impaired the flavor of the apples and caused them to shrink. Hardwood sawdust was the best of the materials used for packing. Apples kept best when immersed in Bordeaux mixture and then packed in hardwood sawdust, but apples merely dipped in Bordeaux mixture kept nearly as well and kept their flavor as well or better.

"I was rebellious about growing old," writes a letter-friend, "until one day I read Browning's Rabbi Ben Ezra.

"Grow old along with me, the best is yet to be

The last of life for which the first was made.

Our times are in His hands Who said, A whole I

planned

Youth shows but half. Trust God, see all nor be

afraid."



Evaporator Buildings and Storage Bins in the Rochester, N. Y., Apple District

Wintering Bees

Provide Plenty of Covering and Food

Proper wintering will greatly diminish the strain which severe weather puts upon bees but even under the best conditions their vitality will suffer before spring arrives and brood-rearing begins, says The Indiana Farmer. For this reason it is most desirable that in the fall the colonies should be both populous and full of young bees. A strong colony presents, in proportion to its numbers, a smaller surface for the radiation of heat than a weak one and in consequence a smaller proportion of the heat escapes. In weak colonies, the bees in their efforts to replace the heat that is lost frequently raise the temperature of the interior of the cluster so high that brood-rearing begins. This is most disastrous if it happens at a time when frequent flights are impossible.

To secure strong colonies of young bees, too rapid an increase in the number of colonies during the summer must be avoided and prolonged brood-rearing carried on late in the season.

Essential as adequate insulation is to the safety of bees, if the packing is delayed too long, it may do more harm than good. A colony that has been forced by low temperatures to generate heat, is considerably disturbed by the process of packing and the temperature in the interior of the cluster is at once raised unduly. This may result in injurious premature brood-rearing. There is probably no place in the United States where it is safe to postpone packing later than Thanksgiving Day.

After the War, Then What?

The deficit in the world's wealth, caused by the general destruction of property and life due to the war, can be corrected or at least partly wiped out by increasing the agricultural production. All mankind knows that the soil is the greatest creator of wealth. While many men have left the farm for what seemed larger possibilities in the cities, there still remain many interested ones and they with the help of some of the less experienced men could put the farms in shape for increased fruit and grain crops. No matter in what season this finds you, you can do something toward increased cropage.

Not only should the farmers plant the land they have already cleared, and study to produce the maximum yield from this land, but they should immediately begin to clear more land—that is, to remove the stumps and boulders, or drain the swamps, and plant as soon as possible.

Rarely, if ever before, have food products sold for so high a price. Never before have our farmers had so great an opportunity to make themselves comfortably wealthy from one crop, and at the same time, perform a great service to all the world by feeding the hungry.

Nothing would be so certain to insure prosperity after the war. No need to take a chance on the rising stock market. There is a gold mine on every farm. From the ground now occupied by stumps and boulders sufficient food could be grown in a year to equal in value a good sized gold nugget.

Hudson River Valley Fruit

The west shore of the Hudson, included in Ulster and Orange counties, is a wonderful fruit section. The hills for many miles are covered with apple, peach and pear orchards, grape vineyards and bush fruit, in most instances all combined in one. Nowhere is intensive fruit culture carried on to a greater extent. Pear and peach orchards with four rows of currant or raspberry bushes between the rows of trees, and a row of bush fruit between the trees in the row are frequently seen. Vineyards invariably have bush fruits between the rows. Strawberries, potatoes and tomatoes are extensively grown in the orchards and vineyards.

The apple crop west of the Hudson is uneven, but the quality promises to be good. One Orange county grower who had control of several large orchards last year had 19,000 barrels of marketable fruit. This year he estimates his crop at 5,000 barrels. Philip H. DuBois, of New Paltz, last year sold his 80-acre apple crop on the trees for \$8,000, and has a fine outlook for a large money return this year from his orchard.

There is a large acreage of peaches in Ulster and Orange counties, but the yield will be very small. The grape crop will be large, but in recent years grapes have not yielded much profit to the growers.

Did you ever see a buzzard's nest? It consists of a few sticks thrown indiscriminately together and it generally occupies a secluded crevice in some high and rugged cliff up in the mountains, says "Field and Farm." A buzzard's egg is about the size of a turkey egg and flecked with brown. A young buzzard is one of the ugliest creatures on earth. It arrives in Colorado in April and remains all summer. There are five varieties of the Buteo including the hen hawk but the true buzzard is the turkey vulture well-known in the south.

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The Farmer and His Motor Car

An expert American financier has estimated that during the next twelve months not less than 1,500,000 automobiles of all kinds will be purchased in the United States. These cars, added to the 3,000,000 already in use, will require 27,000,000 tires, allowing six tires per car per year. The total cost of cars and up-keep, it is estimated, will reach a figure that will be staggering.

In some States there is today one car for every forty persons, while in certain smaller communities the average is much higher. If the increase keeps on, it will not be long before all America will be awheel.

The automobile is becoming an increasingly important factor in farm life. It is rapidly reducing the isolation which once made the agriculturist more or less of an involuntary hermit. The motor car is beginning not only to mellow the farmer, but to expand the city man. The day when every farmer looked upon an automobile as an object for abuse has largely gone. Today your farmer gives the automobile half the road with good grace, for his own possession of a similar vehicle has reversed his prejudices, says Cincinnati Times Star.

There are six million farm owners in the United States, and in time a very considerable part of them will either own motor cars or tractors of some sort. The greater the number of farmer-owners, the greater will be the enthusiasm with which agriculturists will support scientific road building. The time is not far distant when the old "two streaks of mud" which once constituted the rural highway will be a thing of the past. Instead of having merely a few main roads of high quality and bearing fancy names, we will have a general system of permanent pikes running in all directions, a network affording easy accessibility.

John Burrows Buries Apples

"In the fall, after the bins in the cellar had been well stocked, we excavated a circular pit in the warm, mellow earth, and covering the bottom with clean rye straw, emptied in basketful after basketful of hardy choice varieties, till there was a ten shaped mound several feet high of shining variegated fruit. Then wrapping it around with a thick layer of long rye straw, and tucking it up snug and warm, the mound was covered with a thin coating of earth, a flat stone on the top holding down the straw. As winter set in another coating of earth was put upon it with perhaps an overcoat of coarse, dry stable manure, and the precious pile was left in silence and darkness till spring, no marmot hibernating under ground in his nest of leaves and dry grass, more cosy and warm. No frost, no wet, but fragrance, privacy and quiet, then how the earth tempers and flavors the apples. It draws out all the acrid unripe qualities and infuses into them a subtle refreshing taste of the soil. Some varieties perish, but the ranker, harder kinds, like the Northern Spy, the Greening, or the Black Apple, or the Russet, or the Pinnock, how they ripen and grow in grace, how the green becomes gold, and the bitter sweet."

Tractors Work Like Horses

Probably the most iconoclastic part of the whole was the tractor demonstration. All day long seven farming tractors chugged up and down the field, dragging plows and harrows after them, or anchored and devoted their power to operating ensilage cutting machines. The status of these machines in the mind of the present-day farmer is well typified in a statement made by W. D. Auchter, of Elm Grove, who was the first president of the Monroe County Farm Bureau.

"My tractor," he said, "has helped me out of many a difficulty that would worry me when I had to depend on men and horses. There are times when planting must be done within a certain time. Tractors can be worked all night if necessary. I have used mine from the break of day until 12:30 at night, putting a big search light on the front when it got dark."

It was demonstrated that the average tractor can do practically anything that horses and men can do in the way of plowing, harrowing or such things. Traveling at a speed of two and a half miles an hour and developing greater traction than four horses, it is said to be five times as efficient as a team and a man. One man is required to drive the tractor and operate the apparatus attached.

James J. Hill.—The farmer, lad in his jeans and straw hat is the hope and salvation of the country. Without him Wall Street would be of no more account than Tin Pot Alley. The soil not only gives us the crops upon which the fate of every business interest depends, but it gives us the men of brain and brawn, the men of big ideas. When the Romans wanted a dictator, they found Cincinnatus in the field. When the call to arms aroused the colonists, Putnam left his plow in the furrow to go to the front.

Fruit Trees in Waste Places

Editor Green's Fruit Grower:—There is room on every farm for hundreds or thousands of fruit trees planted in waste places. Ten years ago, planted Bartlett and Anjou standard pear trees close to the line fence part way around a ten-acre field. Today I brought home a wagon load of Bartlett pears and all are not yet picked. The Anjou pear trees are well-laden with fine fruit which I will pick and market later. The fruit from these pear trees has not cost me a penny. I have given to them no cultivation and have spent no time in pruning or spraying.

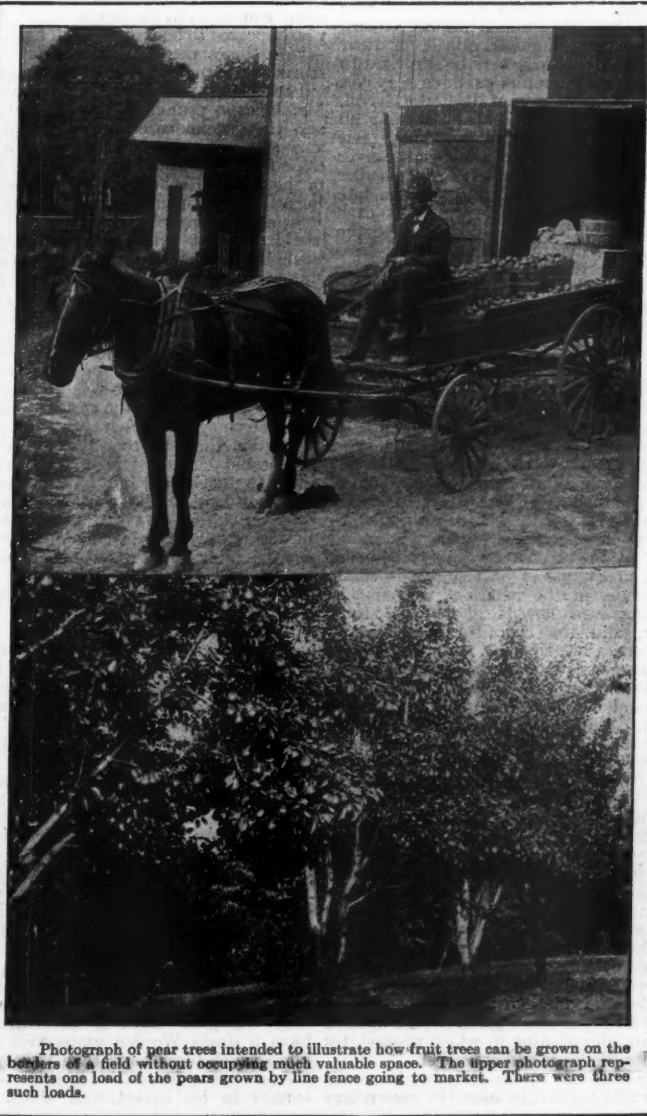
I do not claim that you can grow as large and handsome fruit without cultivation in the sod along line fences as though cultivated and sprayed. There is some danger that mice may gnaw the bark of trees thus planted, but the mice have not disturbed these trees. If the earth is banked up around each tree just before winter and removed the next spring, it will prevent the attacks of mice.

Cherry trees and apple trees as well as pear trees are suitable for planting along line fences. I have grown peach trees along line fences successfully, but they do not do as well in such localities as other fruit trees.

My object in writing this is to call the matter to the attention of the farmer who feels that he cannot spare a field to be devoted entirely to the various kinds of fruits, which would be the better thing for him to do no doubt, but who has vacant space along stone walls, rail fences or board fences where an astonishing number of fruit trees can be planted without occupying any valuable space. Bear in mind that the soil along the fence is usually more fertile than that in the open fields. Planting trees along stone walls is desirable owing to the fact that the stone wall acts as a mulch for the roots of the trees, which in one sense is almost the same as cultivation.

How often in traveling through the country we see long rows embracing several hundred maple trees planted by the roadside. Why not plant fruit trees by the roadside as well as maple or elm trees and have the fruit without cost? Fruit trees by the roadside are beautiful objects in bloom or when laden with fruit. In Germany vast quantities of plums and other fruits are grown by the wayside, yielding enormous quantities of fruit for the needy inhabitants.—John Peterson, N. Y.

No fruits, no flowers, no leaves, no birds—and then November.—Hood.



Photograph of pear trees intended to illustrate how fruit trees can be grown on the borders of a field without occupying much valuable space. The upper photograph represents one load of the pears grown by line fence going to market. There were three such loads.

Quince Culture

By PROF. F. C. SEARS, Mass. Agricultural College

In the choice of a spot in which to grow quinces, one is usually very much restricted, since they generally form a small and relatively unimportant part of the home fruit plantation, which is located only with regard to its convenience from the house. Yet if one is allowed a choice as is usually the case, when one is setting a really commercial plantation, soils, wind breaks, exposures and so forth may all be considered. I do not think the quince is an exacting fruit as to soils. A good clay loam, which has not too retentive a sub-soil will give the first requisites, says Mass. Bulletin, No. 4.

One is apt to get better stock in one year trees, since only the best and most vigorous trees reach saleable size at age, and it allows one to head the tree low, which is certainly the only way to head quinces. After setting, clean cultivation should be practiced. The quince thrives best under clayey moist soil conditions.

As in other fruits the main pruning must be done at almost any part of the dormant season, but preferably about March and a good pair of hand shears, such as are used in grape pruning is all that is necessary for practically all of the work. But the aim should be to keep the head sufficiently open so that the center of the tree may not become "blind" or devoid of one year wood. The quince is really troubled with very few insects or fungus enemies in well kept orchards.

The trees ought to begin to bear by the fourth or fifth year and should reach full bearing by ten years. While the quince is a firm hard fruit, it is easily bruised and such damages show up very plainly, and ought therefore to be handled with care from the time it is picked till placed upon the market.

Winter Protection of Strawberries

In all except the extreme southern and western districts the autumn or early winter is the season in which the strawberry fields should be covered with a mulch, partly to protect the plants from the continual freezing and thawing which occurs in many sections, partly to conserve moisture and keep down weeds during the following spring and during the fruiting season, and partly to keep the berries from contact with the soil when they ripen. This mulch may consist of some kind of straw or hay or of stable manure containing a large proportion of straw, but it should be free from weed seed. Wheat, rye, oat, and buckwheat straw, longleaf pine needles, prairie hay, marsh hay, salt marsh hay and other materials are frequently used for this purpose. The mulch should be placed on the berry field after the ground freezes and before it is covered with snow. If a rain follows the spreading of the mulch, less trouble will be experienced from scattering by the wind. The mulch should be spread evenly over the whole field. If available, sufficient material to make the depth of the mulch when it settles from 2 to 3 inches should be used.

To Prevent Tools from Rusting

Take two parts each of graphite and tallow and one part gum camphor and melt together and if not soft enough to form a stiff paste add more tallow or lard. Remove all rust from the steel surface, wipe dry and apply the paste. Let it remain on for twenty-four hours, then rub dry. Unless the tool is needed, even longer than one day will be still better for the tools to be covered with the preparation.

The above preparation has the effect of a coating of oil, though every vestige has apparently been removed for months.

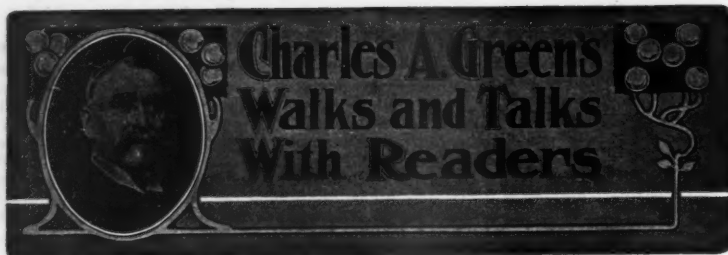
Drainage Advocated

"According to the soil surveys made by the United States Department of Agriculture about sixty-five or seventy per cent of soils here need drainage," said Professor Crabb. "Of this amount from twenty-five to thirty per cent is badly in need of drainage and from forty to fifty per cent would be greatly benefited by drainage. Orchard surveys that have been made by the New York State Department of Agriculture show that from twenty-five to thirty per cent of the orchards are only fairly drained, ten to twelve per cent are poorly drained and two to ten per cent are badly in need of drainage."

The lazy man is always prematurely old. Activity is a stimulant; it keeps men young. Noah Webster was 70 years old before he completed his first dictionary.

Thomas Sumpter lived to be 98. He represented this country as Minister to Brazil when he was 77.

John Marshall was Chief Justice at 80. Titian, the great artist, was painting pictures at the age of 99.



Still Planting Trees Though 82 Years Old

One of our assistants at the New York State Fair at Syracuse this year met an interesting gentleman who said he was 82 years old, but he did not appear to be over 60 or 70, who has been planting trees throughout his long life time. He is getting ready to plant more trees this fall. He has been buying trees at Rochester, N. Y., and has been well pleased as a rule with the trees he has secured from this locality. There are many young men who think it is no use for them to plant trees, fearing they will not fruit in their life time. What will they say of this aged man and his continual planting?

This aged gentleman said that his main object in coming to the fair was to see the exhibit of fruit made by Green's Fruit Grower, but that as long as he was there he thought he would see some of the other exhibits. This is the fourth year he has called to see our exhibit and has always had something interesting to say about the fruit he has been growing.

Green's Fruit Grower for the past six years has been making an exhibit of seasonable fruits at the New York State Fair under our own tent and under the protection of the American flag which floated serenely above it.

Pumpkins

When I was a child on the farm I enjoyed passing field after field of corn in the shock and blazing between the shocks up hill and down, thousands upon thousands of great yellow pumpkins. In old times these pumpkins were fed to the cows who seemed to relish them. I cannot remember that they were fed to other stock. Of late years pumpkins are conspicuous by their absence. Why is this thus? I suspect that here is an illustration of the fact that the average farm soil is not so fertile as it was forty years ago and that our soil will not produce a large crop of corn and at the same time a large crop of pumpkins without the free application of fertilizer. But possibly it has been discovered that pumpkins have little value as food for the cows. The principal use of pumpkins today, is for making pumpkin pies. No grocery in the city or country is complete in October or November without an ample supply of pumpkins, but large pumpkins are not in demand since few families desire any except those of small or medium size.

Boxes for Apples Instead of Barrels

It is difficult to secure the adoption of new ideas in regard to the packing of fruit, or, in fact, as regards any subject. The apple barrel has so long been the one package for apples, the average apple grower is slow to accept anything else, and yet I am satisfied from my own experience that where apples are to be retailed, sold to the consumer, the bushel box is far superior to the barrel. I find there are few who will buy a barrel of apples to place in their cellar, where there are many who will buy a bushel box.

One objection raised by the apple grower to boxes is that he cannot buy them as a rule and must make them himself, and he has not the facilities or perhaps the faculty of making them cheaply. I suggest as winter work the making of apple boxes, having all ready when needed the following summer or fall. All parts of the box should be of thin lumber, less than $\frac{1}{2}$ -inch, except the two ends, which should be about $\frac{3}{4}$ -inch in thickness. This lumber should be sawed in lengths and in widths all ready to be tacked together. Assuming that two strips of board are used on each side and on the bottom of the box, and if need be on the cover, they need not cover the entire space. There may be a ventilator slit of an inch or more between these two strips that occur

on each side of the box, which makes it easier to construct the box. You should have some contrivance for holding the heads of the boxes in position, just in such position as an extra man would assume in holding the heads for you while you are tacking the sides and bottom onto the heads. It will not require a carpenter to make these boxes. Any fairly good average farm hand should be able with a little instruction and practice to tack together from 50 to 100 of these boxes each day.

In packing the apples the top of the box should be faced, but I doubt whether in the eastern or middle states it would be desirable or practicable to place the apples in layers in the way that oranges are packed, owing to the differences in the size of apples. I see no reason why in facing the box the apples should not be poured into the box and shaken down and then pressed in with some force when the cover is on.

The Hunting Season has Arrived

The horn of the hunter is not heard on the hill, as the old song says, but the bark of his dog is heard and the crack of his shotgun or rifle. How I used to love to roam through the woodlands, when the leaves were falling, after the squirrel, pigeon, partridge and quail. I love yet to wander through the woodlands, but I do not take pleasure in shooting game as I did when I was young. The season will soon be here when the hunter of mink, muskrat, coons, foxes and other animals valued for their pelts will arrive. You may be surprised to learn that such hunters as these may yet be found in the vicinity of Rochester, N. Y., who make considerable money hunting all through the winter and watching their traps along the shores of the Genesee river or the inlets of Lake Ontario or the smaller streams. These hunters accumulate thousands of valuable fur animals each winter. Attention has been called to the inhumanity of setting traps for wild creatures and in not attending to these traps almost daily, thus causing terrible agony on the part of entrapped animals who should speedily be put out of their misery.

Fruits Wasted

During my brief vacation in the Adirondack mountains I have seen palatial summer homes by the shores of the lakes, back of which and in front of which and upon either side appeared the blue peaks of Mount Marcy or Old White Face. These homes, which the wealthy owners expect to occupy for a few weeks of the heated term of summer, are often occupied all the year round simply by the caretakers, the owners being absent in Europe or on the Pacific coast. Meanwhile, in the luxurious gardens are blooming rare flowers and those better known, and the beautiful and fragrant strawberries are ripening and the red and black raspberry and the blackberry in such abundance that they cannot be consumed and are allowed to decay upon the vines or bushes. This would seem to be a sad waste considering how many hungry people there are who would gladly pick these berries and other fruits to relieve their hunger and to better sustain life, but the wealthy owners are not worrying about the fruits ripening and decaying in their mountain gardens.

They are enjoying themselves elsewhere. They have a surfeit of worldly goods and are not suffering for fruits and flowers wherever they may be. If they were at home and their attention were called to the fact that there was more fruit ripening in their gardens than they could make use of, they would undoubtedly share these fruits with less fortunate neighbors. The caretakers are not as a rule given to picking such fruit and distributing it, which necessitates considerable labor and attention.

This leads me to the thought that there will never come a time when the good things

of this earth will be equally distributed. Our law-makers aim to bring about better distribution of the various kinds of wealth and of the products of the earth, but they will never succeed to the uttermost.

In the far north where civilized man rarely places his foot, where the land is ice-bound during a large part of the year, many wild fruits, strange to relate, ripen abundantly each year. The cold weather approaches so suddenly that many of these fruits are preserved in ice until the succeeding summer, when the ice thaws and the fruits are liberated fresh as when buried there six months previous. Naturalists claim that our wild birds go to this north land each summer in search of this abundant supply of wild berries.

When we consider the waste of fruit in the large orchards, many of which embrace 50 to 500 acres, and the large quantities which perish in shipment to distant cities, and the large quantities which decay in the hands of the commission houses, the total sum of all the fruit going to waste each season is beyond computation. But it is much the same with other products. I am told that the waste in eggs through imperfect storage and transportation amounts annually to \$200,000,000.

A Basket of Grapes

Driving along the southern suburbs of Rochester recently I saw a man carrying a basket of grapes.

"Will you ride, sir?" I asked.

The man paused in his march accepting my invitation.

"I imagine you have just come from the Pinnacle Hills vineyard," I remarked.

"How is our old friend, Jerry Jones?"

"Mr. Jones has been dead several months. His wife died about one year ago. Mr. Jones did not long survive her."

"You astonish me by this announcement. Mr. Jones has long been my neighbor. Many times I have visited the vineyard which has for many years been under his care and supervision and have received many courtesies at the hands of Mr. Jones, who appeared to be a man in full health."

"Mr. Jones was a friend of mine, also," remarked the man with the basket of grapes.

I have long admired the skill displayed by Mr. Jones in pruning, training, cultivating and the general care and treatment of a very attractive vineyard located on a steep slope facing the south in the southern part of the city of Rochester. Here were growing a larger assortment of grapes than I can remember having seen in no other part of the world. Almost every well-known variety could be seen here in perfection, also a large number of varieties known only to a few, such as Gaertner, Goethe, Wilder, Lady Washington, Duchess, Diana and many other of this class.

Mr. Jones was skilled in keeping his grapes in fine condition long after they were gathered. His method was to stack the trays of grapes under the shade of big trees near the vineyard in such a way and in such a position that the cool air of this shady spot could circulate freely. He removed them to the cellars only when there was danger of frost and he warded off the frost by covering the trays of grapes with canvas. In this way his grapes were in fine condition months after they were taken from the vines.

"I imagine you are a lover of grapes," I said to my passenger.

"Indeed I am," was the reply. "Myself and family are looking for the time when we shall be able to buy a few acres of land in the country where we can grow not only our grapes, but our apples, pears, peaches, plums, cherries and other fruits."

"Have you no grape vines about your city home?" I asked.

"No," he replied. "We are living in a rented house and have not such a luxury as a grape vine of our own."

Then I estimated how long this little basket of grapes, containing not over twenty clusters, would last this man and his family. I would guarantee to eat the entire basket of fruit in two days without outside help.

Here is an illustration of the meagre supply of fruit which the average family secures, which does not grow its own fruit, therefore for people to talk about buying grapes, apples, pears, strawberries, as cheaply as they can grow them is all nonsense. I have a single Worden grape vine on my place which bears more than twenty times the amount of grapes which this poor man carried in his basket, and which basket

probably constitutes nearly all of the grapes that he and his family will be permitted to enjoy this season.

Is not here an object lesson relating to the value of a single grape vine on a city, village or farm lot. There is scarcely a city lot in Rochester on which there is not room for a few grape vines, which not only would yield a bountiful supply of fresh picked grapes cool and with the dew yet upon them and which vines would at the same time be a great ornament to the place.

An Objection Lesson in Distribution

Last year western New York peach orchards bore fruit in great abundance. While I have not full information as regards the yields of peaches of other sections of this country, I suspect that this Rochester district grows more peaches than any other district in this country. I have asked for information which I hope to get soon. About 4,000 cars were shipped from western New York this season and probably more last season. While these shipments and other shipments over-supply the large cities of New York, Boston, Philadelphia, Pittsburg, Baltimore, etc., villages within twelve or twenty miles of this fruit district were not supplied with peaches at all, and the people were almost starving for them. Car-loads of peaches could have been sold within twenty-five miles of Rochester, but this market was almost absolutely ignored. Surely there is some excuse for its being ignored, for the peach crop was so heavy the growers had all they could do to gather the crop and load them into cars, to say nothing about supplying rural districts nearby, but there were two small orchards who started out through the country with two-horse wagon-loads of peaches which they succeeded in selling without difficulty to farmers and villagers at far more profitable prices than they received for shipments to New York City.

Here is an unusual phenomenon: peaches in surplus on the northern border of Rochester and a famine in peaches twelve or twenty-five miles south of Rochester.

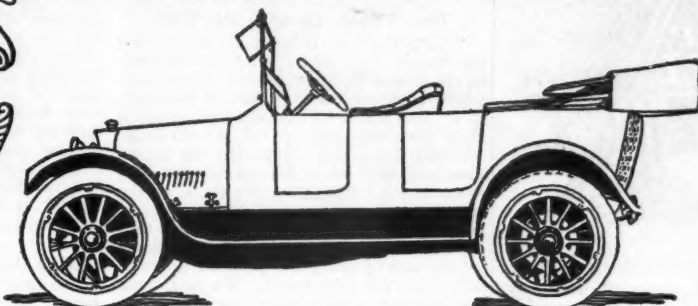
This leads the writer to make the oft-repeated statement that if fruit could be distributed there would never be a surplus. There are enough people who want it, but they are not all able to lay their hands upon it.

The Oak

Considering the grandeur and beauty of the oak, how strange it is that so few should plant this noble tree. My superintendent is an Englishman. The English appreciate the beauty of the oak, which is ever present on the great estates of England. One day in wandering over Green's Fruit Farm I came across a row of white oak and English oak, beautiful, shapely trees, just the size for transplanting. This row was unbroken, not a tree having been dug or sold. I at once advertised this tree for sale at a modest price, but cannot remember that one was sold. Later I announced again that I had a few valuable oak trees ready for transplanting, but still there were none sold.

It is expensive growing oak trees up to a size for planting. At least seven years is required, but after the tree arrives at a certain age its growth is more rapid. The managers of city parks appreciate the beauty of the oak and plant it with surprising effect. One of the oak's qualifications is the holding on of its foliage late in the fall and often through the entire winter, and the beauty of its foliage from early fall on to winter. Then there is something sturdy about the oak and its branches which commands respect.

This morning I have planted two oak trees, one of which I shall name for my wife and the other for myself. This idea of planting trees in honor of different members of the family occurred to me many years ago when living at Green's Fruit Farm. One evening I went to the woodlands and dug out a white oak. It seemed as though I had never worked so hard in my life as in digging out this oak, the tap root of which descended stoutly several feet. Though I tried to be careful, the roots of this tree were mangled and I doubted whether it would live, but it thrived amazingly and I was exceedingly proud of it for many years. Later, owing to some changes of the grounds, I found that this memorial oak tree had been destroyed. Allow me to suggest to the reader that he plant the oak in honor of his father or mother or his wife.



The New Reo the Fifth, "The Incomparable Four," \$875, f. o. b. Lansing

Here's the Secret of Reo Reliability

DOUBTLESS YOU'VE WONDERED—knowing as you do, how absolutely dependable are Reo cars—how free from troubles, and how low in upkeep cost: **YOU'VE WONDERED** wherein lay the secret of that reliability that is Reo.

WELL, WE'LL TELL YOU. And then you'll wonder at its ridiculous simplicity.

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YOU READ THAT every year—only this year it's another engineer. That revolutionary stunt of last year has been forgotten.

IT WAS AS IMPOTENT as a South American revolution—it didn't!

SO THE SECRET ISN'T to be found in any such feat or invention.

REO PERFORMANCE—reliability, dependability, uniformity of performance of all Reos, of whatever model or price—is the result of the taking of infinite pains in the designing, the making and the inspection of the Reo product.

IT'S THE LITTLE THINGS that count—not the big ones.

ANYONE—A BOY EVEN—can make a motor that will be "different." Or an axle, a transmission or a set of springs that might impress the tyro as new and wonderful.

BUT TO MAKE ANY of these vital units better—that is the task—that should be the aim. It has always been the Reo aim.

INFINITE CARE in the fabrication and then in the inspection, and finally in the testing of the assembled whole—that is the secret of Reo success in making, not the most but the best, automobiles.

IF THERE ARE 2000 PARTS in a motor car; and if there's an average of four machining operations on a part—that's 8000 chances for something to go wrong!

AND ONE DEFECTIVE PART—one, however small or seemingly insignificant—that does not fit absolutely, and you'd have a car that would be less than a Reo in performance—more than a Reo in cost of upkeep.

INFINITE PAINS, WE SAID: Perhaps that's too big a term. But if you could know how great is the task—how unremitting the care—to guard against even one little error creeping into any one of these 8000 places—you'd grant us the word "infinite."

"THOSE PESKY LITTLE TROUBLES that are always happening with other cars, are unknown to the Reo owner," says one Reo dealer, "and that's why the demand for Reos is so great."

WHEN YOU STOP TO THINK about it, the troubles you've had with other cars were not big troubles. Your motor didn't drop out of your car or your transmission strip or your frame break in two.

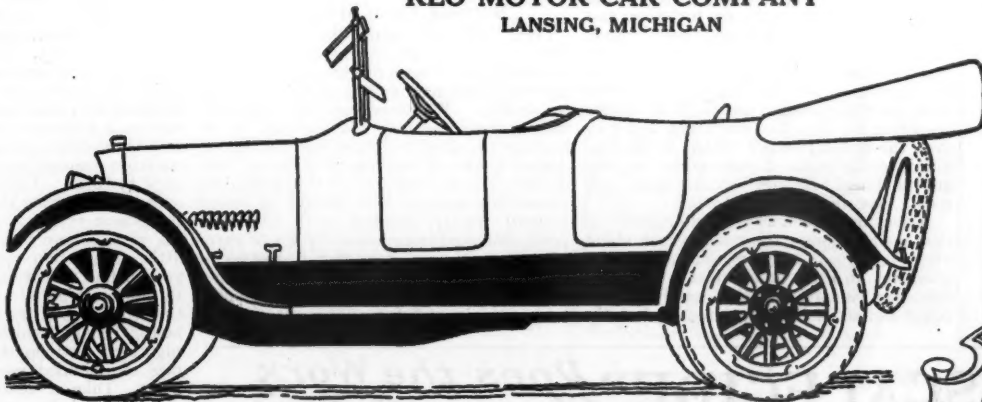
IT WAS THE LITTLE THINGS that pestered your motoring life—parts shaking loose or getting out of adjustment. Dust in bearings—oil leaks—everywhere. Squeaks and creaks and rattles. Always the dread when starting out that you might not return. Always the fear when in a hurry that some pesky little trouble resulting from some pesky little defect, of which you were cognizant, might delay you. Wasn't there?

WELL THEREIN LIES the big difference between Reos and other cars—the big difference is in attention to the little things.

IT IS NOT UNCOMMON—in fact—it is the rule—for a new Reo owner to drive his car thousands of miles—a year, two years—without even seeing the inside of a garage or lifting the bonnet to make an adjustment or repair.

HONOR AND FAITH and a Good Intent—these and the attention to little things they dictate—result in Reo Reliability as it is known the world over, "The Gold Standard of Values" in automobiles and motor trucks.

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The New 7-passenger Reo Six Touring Car, \$1150, f. o. b. Lansing





This Ladder Gets ALL the Fruit

HERE is a ladder that gets all the fruit on all the branches. Never injures twigs or next year's fruit buds, because it never rests against them. Mounted on a light, strong, easily portable steel truck. One man moves it easily. Holds a weight of 600 lbs. Can't tilt or tip. Makes fruit picking absolutely safe.

The Safety Ladder

pays for itself by saving fruit that would otherwise be lost, by making picking easier and faster and by obviating all personal danger or liability therefor. Just as convenient for pruning and spraying as for picking. Ideal for Orchards, City Parks and large Country Estates. Can be converted into a 20-foot scaffold. Sent on 10 day's approval, and guaranteed. If not all we represent, return it to us at our expense.

Send for circular and save your crop.

THE SAFETY LADDER COMPANY,
605 Reibold Bldg., Dayton, Ohio

Tree Protectors

Made of Wood Veneer
Protect your trees from mice and rabbits. Price \$1.00 per 100; \$4.50 per 500; \$8.00 per 1000.

Green's Nursery Co.
Service Dept. Rochester, N. Y.

SAWS

ANY WOOD IN ANY POSITION ON ANY GROUND 4 in. to 5 ft. Through 1 Man Sawing Machine Beats 2 MEN With a Cross-cut Saw 5 to 6 cords daily is the usual average for one man

Our 1917 Model Machine saws faster, runs easier and will last longer than ever. Adjusted in a minute to suit a 12-year-old boy or strongest man. Ask for catalog No. M-7 and low price. First order gets agency. Folding Sawing Mach. Co., 161 W. Harrison St., Chicago, Ill.

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Odorless Sanitary Germ-Proof
Every home without sewerage needs one. Most convenient, meritorious home necessity in a century. A boon to sick people. Can be placed anywhere in house.

Abolish Outdoor Closet

Put a warm Comfort Toilet in your home, a guarantee of healthy, sanitary conditions. Germ-life killed by chemicals in toilet. Emptied once a month—no trouble. Needs no other attention. Boards of Health endorse it. Write now for literature, prices, etc. Agents Wanted—Exclusive Territory. COMFORT CHEMICAL CLOSET CO., 15011 1/2 East 12th Ave., TOLEDO, OHIO

COME TO VIRGINIA

Share in the prosperity that awaits you in these nature-favored localities. Fruit, vegetable and poultry farming pays wonderfully. Rich, fertile soil, mild climate, long growing season and agreeable neighbors. Excellent farm lands \$15 acre and up. Write for latest bulletin, maps and full information—free on request.

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Notes from Green's Fruit Farm

How Things Look in the Fall

"When the frost is on the pumpkin and the corn is in the shock" I am ever inclined to drive out to that pleasant farm home where I spent so many years of my early life. This would be an interesting place if there were nothing there but the old house and the barns and the woods, the brown meadows and the fields green with new sown wheat. But when we think of the chestnut trees, long rows of apple, pear and grapes, and other interesting features that have been added since my early occupancy we are sure of being well paid for a twelve mile trip over good roads. We find those specimen apple trees embracing more than 100 varieties of apples not so well represented with fruit this year as ordinarily. Last spring was exceedingly wet, day after day, caused by drenching rains with but little sunshine, which was not favorable for the spread of pollen from the blossoms of the various fruits, therefore we have not the abundance of fruit at Green's Fruit Farms that we can generally show, and yet we made a creditable showing at the New York State Fair at Syracuse where we had a tent and where all friends, old and new, were welcome. But there are some varieties of apples upon the trees as we pass along, gleaming out in many colors as beautiful as roses.

Pears are not a full crop this year and yet our Anjou, Lawrence and Bartlett have yielded well and sold at profitable prices.

We never forget to climb the little knoll where our modest vineyard is located and are always rewarded with the sight and taste of beautiful grapes of various colors.

It is surprising how those chestnut trees, planted by my own hands when little slips of trees not over 3 or 4 ft. high have grown. Some of the bodies are nearly as large as the body of a full grown man, and the highest branches are often 30 or 40 ft. high. These are the common sweet chestnut, which are the best of all in quality, though not so large as some of the improved varieties. We used to think that chestnut trees could not be grown on any but sandy ground, but here they are succeeding admirably on a clayey loam.

Preparing for Winter

Preparation is necessary for every season, but winter more particularly than any other. Wintry winds must be prevented from entering the poultry house, the pig pen, the horse and cow stable and the dwelling house itself.

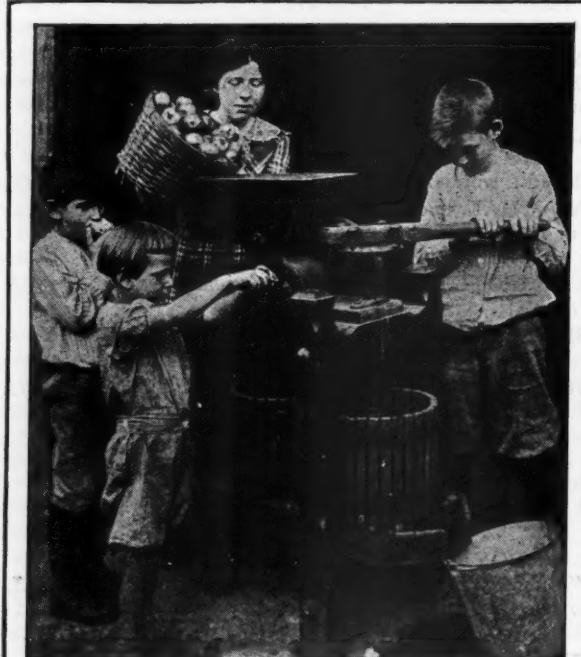
Is your chimney in good condition? As I ride through the country I see many chimneys that seem to be tottering and ready to fall upon the roof and possibly upon the heads of people below. Yes, the winds can blow those bricks off the chimney onto the ground. Are the windows in your house carefully fitted or are the joints widely separated so that the winds can enter or even the drifting snow? What is the condition of the roofs of your house or your out-buildings? If they do not need new roofs, they may need patching.

Is the farm machinery safely housed? If it is muddy during the rainy season about your farmyards or your walks, now is a good time to apply an abundance of gravel, ashes or cinders. Look carefully at the cellar and see if it is protected against the

entrance of frost. The farm cellar is not the best place for keeping fruit and vegetables, but it is the place where rural people generally keep these products. If so, see that the cellars are ventilated. There is more danger of the cellars being too warm than too cold.

Have you lights in your house for the long winter evenings, and have you safe lanterns for use in the stables on dark nights? I have known farm-buildings to be destroyed by defective lanterns.

What three things can you best do this fall to brighten up your rural home? My answer would be, plant ornamental vines, shrubs and trees, but do not omit to leave open spaces for unbroken patches of lawn. The next best thing would be to paint your house, the out-buildings and the fence. Paint is a wonderful beautifier, but beauty is not the only thing, for you cannot preserve your buildings unless you paint them. A well-painted building will last for nearly a hundred years if well built, but an un-



Everybody about the farm rejoices in a little sweet cider when the frost is on the pumpkin. Here is a home supply press, a grinder for making cider in moderate quantities.

Have you a tool house? If not, build one. Consider how handy it is when you want the axe, the shovel, the hoe, the pickaxe, the handsaw, the cross cut saw, the pruning shears, the grafting knives, to be assured that they are all safely stored in a place designated and prepared for this purpose, each implement hung upon its proper nail or hook ready for use. How often it requires more time to hunt up tools than it does to do the work in hand or make the needed repair. There should be a large bench in this tool house with a vise of iron or wood with hammers and nails of various sizes and screws and bolts of various lengths and sizes. An anvil or something to take its place is desirable. A part of my religion is not to be wasteful. I feel condemned if I allow things that might be useful to others to go to waste. There are so many needy people in this world we should be thoughtful about letting things go to waste.

Heating the Farm Home

When I was a boy on the farm the only method thought of for heating the farm-house was the wood stove. Only two fires were kept up during winter, one in the kitchen and the other in the living or sitting room. The stove in the sitting room was of sheet iron with a large cover over the top, which when removed would admit a large chunk of wood. These chunks would not split. They would last in the stove for several hours on a cold day or half a day during moderate weather. Wood was burned also in the kitchen stove. No farmer thought of using coal in those days.

Now many ruralists are heating their homes with furnaces and some are using hot water and others steam heating. I have had experience with water heating and steam heating. I have been told that they were the ideal methods of heating a house, economical in the burning of coal and giving more equalized heat. My experience is that for a moderate sized house there is no superior to a good coal furnace. My coal furnace which has been in use twenty-five years burns less coal and heats more space than hot water heating, which I use in a portion of my house. The furnace gives better ventilation than either hot water or steam heating. There is perhaps, more danger of fire from a furnace than from either water or steam.

Kill out the Mice in your Orchard

As a rule poisoning is the best method of destroying field mice. For pine mice sweet potato bait is preferred. Cut the sweet potato into small pieces and have it in a pan of some sort. Take powdered strychnine and put it in a tin pepper shaker. If the sweet potatoes are freshly cut, they will probably be moist enough, but if they have become a little dry, pour water over them, and then drain them off, and they have moisture enough to make the strychnine stick to them. Then shake the strychnine over them, stirring them so as to distribute the poison evenly. Then you go along to the place where the mice are, and just a little observation on your part will lead you to find their runs. Look for those little holes just about as large as your finger, that come out of the ground. Those are the holes through which the mice come out nights to feed on the surface. Drop the bits of poisoned sweet potato into those holes. Take a broom handle with you, and if the holes are not plentiful, make others into the runways. Drop the poisoned baits along the runway at intervals of say, a rod, and you can clear out all the pine mice that you have in the neighborhood. But you will have to keep up this work.—F. H. Sweet, Va.

Fall Spraying "SCALECIDE" Does the Work Controls Leaf Curl Cleans up the Trees

Don't put off the dormant spray until the spring rush. The weather may be bad or the ground too soft. Spray this fall and make sure of controlling peach leaf curl, San Jose scale, pear psylla, apple canker, collar rot, etc. You can save trees now that would die before spring. Use "Scalecide." Better and cheaper than lime sulphur—cuts the labor

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Subscribers who change their residence will please notify this office, giving old and new addresses.

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Apple Orchardling

We believe that the best opportunities to diversify the apple farm—especially where lands are high priced and where there is an over-head cost, taxes and interest on investment, of from \$30 to \$50 an acre—is by the growing of more than one kind of fruit. We doubt if there are many types of farming other than fruit growing that will pay as good a dividend on an investment of over \$500 an acre, says "Fruit and Produce Marketer."

Regardless of location, soil or climatic conditions where fruit is raised there is no doubt that the fruit grower should under all circumstances have a good garden; should raise enough pork for his own use; should keep a family flock of chickens and a good cow. He should also endeavor to raise all feed necessary to maintain all stock on the ranch.

Where climatic and soil conditions favor cheap and abundant pasture and where most of the concentrates necessary may be raised on the farm or obtained at a reasonable price, hogs have proved a profitable investment with orcharding.

800 Car Loads of Peaches in One Week

A complete check is kept on the cars that go out of Western New York, their number and destination. More than eight hundred cars were shipped to 160 places throughout the United States last week.

Green's Fruit Grower would like to get reports from subscribers in various parts of the country relative to the quantity of peaches shipped in their locality. We desire to learn whether the Rochester district is the largest shipper of peaches. It is estimated that this district has shipped 4,000 cars of peaches during the season of 1916.

The interest in peaches throughout this country is increasing. There is reason for this, for the peach is a tempting fruit, beautiful to look upon and easily produced except in localities far north where the buds are killed by severe freezing in winter. There is no tree that produces fruit earlier after planting than the peach. Little trees planted two years ago in my garden have borne beautiful peaches this year. Those trees planted three years ago have borne a full crop of large and luscious fruit beautifully colored. As a home product for home consumption there is nothing superior to the peach for it ripens at a season of scarcity in ripe fruits, a little before the grapes and before the best apples and before the best pears. There is no difficulty in even a most unskilled person's securing an abundance of peaches for the home garden. Any kind of planting and any kind of pruning will bring about the desired result for home use.



A New Law on the Size of Fruit Baskets and Other Containers Used in Interstate Commerce

We have just been notified of a law which will become effective November 1st, 1917, which specifies what shall be the capacity of baskets, boxes, barrels and other containers of fruits which are shipped from one state to another. We already have a state law which controls the size of packages used in shipping fruit within the borders of New York state. The new law will not affect the size of packages used within the state, but only the size of those packages used where the fruit is shipped from one state to another.

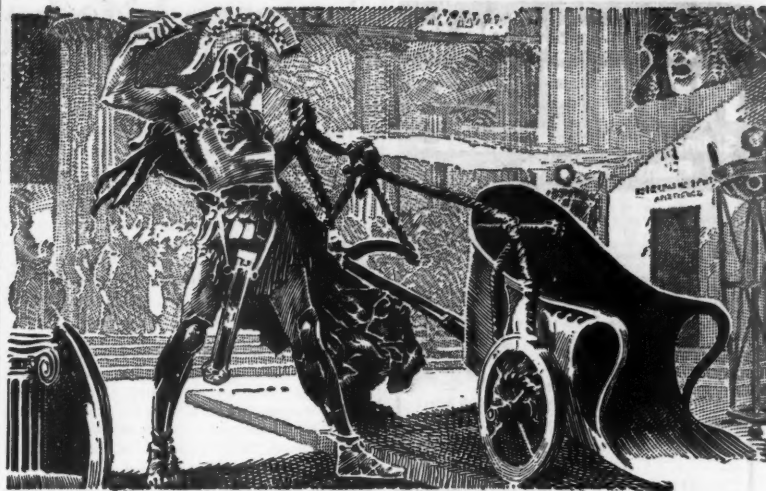
It is important that there should be a Federal law, but it would be serious if the Federal law conflicted largely with the state laws, thus making it impossible for the packages used in one state to go into another state. Therefore, either the Federal law must be modified to meet the best of the state laws or all of the state laws must be modified to meet the Federal law. Manufacturers of baskets and other containers of fruits sold for interstate shipments should be continually on the alert to learn the requirements not only of the state, but of the country at large affecting these containers. Green's Fruit Grower will publish later a statement of the requirements of the Federal law for interstate commerce.

If you desire information in regard to this new law, which will take effect November 1, 1917, more than a year from this date, address the Office of Information, United States Department of Agriculture, Washington, D. C.

Domestic Green Fruit

New York—Apples—Market firm under a good demand; finest fruit higher. PEARS—In good demand for best grades. PEACHES—In good inquiry and higher for fancy.

Apples—Alexander, per bbl. . . \$1.75@3.75
—Duchess of O., per bbl. 1.75@3.00
—Snow, per bbl. 1.75@4.00
—York Imperial, per bbl. 1.75@3.00
—Gravenstein, per bbl. . 1.75@4.00
—Maiden's Blush, per bbl. 1.75@3.50
—Wealthy, per bbl. 2.00@3.75
—Fall Pippin, per bbl. . . 1.50@4.00
—Holland Pippin, per bbl. 1.50@4.00
—Coddling, per bbl. . . . 1.50@3.00
—Twenty-Ounce, per bbl. 1.75@3.50
—King, per bbl. 1.50@3.25
—Hubbardson, per bbl. . . 1.25@2.50
—Ben Davis, per bbl. . . . 1.25@2.25
—Baldwin, per bbl. 1.25@2.50
—Greening, per bbl. 1.25@3.50
Pears—Le Conte, per bbl. . . 2.00@3.00
—Kieffer, per bbl. 1.50@2.50
—Bartlett, per bbl. 2.50@5.50
—Seckel, per bbl. 3.00@6.00
—Hqwell, per bbl. 2.50@4.50
Peaches—State, per basket . . . 40@ 90
—State, per bush. bask. . . 1.00@1.75
—State, per carrier 1.00@1.50



Doing "the Impossible"

The Gordian knot is the ages-old symbol of the seemingly impossible. Alexander the Great gave it a place in legendary history when, unable to untie it, he cut it in twain with his sword.

This famous incident of antiquity has its modern counterpart in the real work of the men whose vision and unrestricted initiative brought forth the great Bell System.

In the development of the telephone, one Gordian knot after another has been met with. Yet each new obstacle yielded to the enterprise of the telephone pioneers. Every difficulty was handled with a will and a courage which knew not failure.

Man's words have been given wings and carried wherever his will directs. Electrical hand-caps have been overcome one by one.

The feeble current of telephone speech has had a way hewn for its passage through all physical impediments, until the entire country, from the Atlantic to the Pacific, is within hearing of a child's faint cry.

This record of the Bell System for past achievements is an earnest of future accomplishment. New problems are being met with the same indomitable spirit, which guarantees a more comprehensive as well as a more perfect service.



AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy One System Universal Service

When You Write Advertisers Please Mention Green's Fruit Grower



SLOANS' LINIMENT

keeps your stock in good condition. Full directions in package will show you many uses for every member of the barn yard family.

Thousands of farmers indorse Sloan's Liniment for pains and aches, sprains and bruises. At all dealers, 25c. 50c. and \$1.00 a bottle. The \$1.00 bottle contains six times the 25c. size.

Big Bargains in ROOFING

Siding—Ceiling—Wall Board—
Paints—Garages

Write at once for our Big Roofing Book illustrating and describing every kind of Sheet Metal Roofing and Building Material at Rock-Bottom Prices.

We are the largest manufacturers of Iron and Steel Roofing in the world. We sell direct to you—save you all middlemen's profits—and PAY the FREIGHT to your station. Get our low factory-to-consumer prices NOW!

EDWARDS

Roof Metal Shingles
cost less, yet outwear three ordinary roofs. Absolutely proof against the elements. All joints and seams are water-tight, because the Edwards Patented Interlocking Device makes them so. No warping, breaking or buckling. Nails are driven through holes which are covered by upper layer. This makes them permanently weather-proof.

Edwards Exclusive makes our

Tightlock Process products absolutely

rust-proof. Not a pin point space of steel exposed to the weather.



Garage \$69.50 and Up

Wide variety of styles, all sizes of Portable Fireproof, Metal Garages, \$69.50 and up. Lowest prices ever made. Postal brings Big Garage Catalog free.

Edwards Products Stand the

Galvanizing Test

Take any other galvanized steel, bend it back and forth several times, hammer down each time, and you'll be able to flake off great scales of galvanizing. Apply this test to Edwards Galvanized Metal Roofing—you'll find no flaking.

FREE Roofing Book

quotes Rock-Bottom Factory Prices on Roofing, Siding, Ceiling, Wall-board, etc. Send for it. It's the biggest offer ever made. Send coupon for Book No. 1154.

NAME.....

ADDRESS.....

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Spanish Metal Tile

Corrugated

Edwards Patent "Grip Lock"

FREE Samples & Roofing Book

The Edwards Manufacturing Co., 1104-1134 Pike Street, Cincinnati, Ohio

Please Send FREE samples

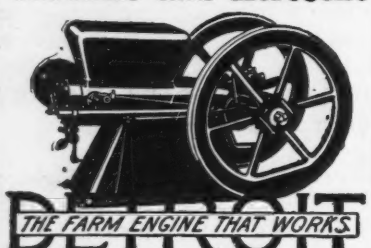
Freight-Paid Prices and World's

Greatest Roofing Book No. 1154

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Gasoline and Kerosene



Built and guaranteed by the largest producers of farm engines—simple, durable, powerful—four cycle, suction feed, make and break ignition—every part interchangeable—fully tested. Guaranteed to Develop Rated H. P.

SAVES FUEL, TIME, LABOR, MONEY

Lowest Price, Greatest Value

Write for big illustrated Engine Book today

Full Line Detroit Engines 2 horsepower up

DETROIT ENGINE WORKS 191 Belvue Ave., DETROIT, MICH.

Wadsworth Eng. Co., Successors

FREE My Big New Buggy Book

SPLIT HICKORY

Just drop me a postal and I will mail you my big new catalog showing 150 stunning styles of Split Hickory Vehicles. Famous for beauty, lightness, strength, and low service. I give

30 Days FREE Road Test and 2 years guarantee. Now I have sold the price to save you \$20 to \$40 on your new ride. Catalog explains how. Write for free book today. Address

THE AUTO GARAGE MFG. CO. H. C. Phelps, President, Station 40, Fremont, Ohio

Catalog shows 150 other styles \$39.25 up from

SKUNK We pay top prices for Skunk, Mink, Muskrat, and all raw Furs. Price list free. M. J. JEWETT & SONS, REDWOOD, N.Y. - DEPT. 13.

Successful Method of Organization for the Distribution and Sales of Fruit

By C. A. GREEN

It is conceded that fruit growers generally throughout this country have not in the past years been successful in plans for distribution and sale of our various fruit products. This is the greatest fruit growing country in the world. There is no other land in which the various fruits are produced so freely and at so little expense as in the United States of America. It may be said, that fruit is produced here almost spontaneously.

Our methods of distribution and sales have been defective. It has required many years of experiment and of loss to reach a method or a plan by which fruit growers can be organized in a way to prevent glut of fruits at certain centers while there are hundreds of thousands of other localities which are scarcely supplied at all.

It is conceded that if our fruits were properly distributed there would be no surplus. Indeed, there would not be enough fruit on the market to supply the entire country if all the markets were made available, or if shippers knew of localities that were over-supplied and of those which were under-supplied.

It has been left for California to achieve the greatest success in handling fruits. There have been seasons when the great orange crop of California was allowed to rot for lack of organization in selling. Now California is thoroughly organized and other fruit growers in various parts of the country are following the lead of California and are anxious to learn definitely of the method existing there in the distribution of fruits.

California has hit upon the plan of advertising her oranges and other fruits in a way to bring about an increased demand from consumers, the advertising tells, paid by the various growers benefited, thus we hear of the Sunkist oranges and lemons. Here is a poetical presentation acting upon the imagination of the consumers effectively. This idea has been copied by others in different parts of the country, therefore now we see entire pages of advertising in the various magazines of certain brands of apples produced in certain favored sections, calling attention to the healthfulness of apples. Here is a sample of the wording of one of these advertisements:

"Apples are nature's tonic. They stimulate the appetite, aid digestion and tone up the entire system. The United States Department of Agriculture places apples at the head of all fresh fruits in comparative cost of nutrients and energy. Dr. Barnard, Chairman of Food Division of American Chemical Society, says: 'An apple eaten in the evening will mechanically and chemically clean the teeth and protect them from bacterial ravages in the night, when the most damage is done.' The Helpman apples are the choice of the world's finest apples. If your dealer does not carry these Helpman apples write for name of one who does supply them. An interesting book upon apples and a musical apple balloon mailed for ten cents in stamps. Address, etc."

This advertisement is beautifully illustrated with a dish of apples colored from nature with a hungry boy reaching out for an apple to eat. Such advertising as this must be profitable or else it would not be adopted and continued. Methods similar to the California organization have been adopted by the Florida Citrus Exchange, the Ozark Fruit Growers' Association and the California Associated Raisin Co.

The California Fruit Growers' Exchange comprises 8,000 citrus fruit growers handling the larger part of the entire citrus crop of California, in which enterprise \$200,000,000 is now invested. There are now 150 local associations of 40 to 200 members each, grouped under 19 district exchanges. These 19 district exchanges are grouped under a single central exchange located at Los Angeles. The central exchange assesses the district exchanges each month their approximate share of the cost of operation, based on the number of boxes shipped. The district exchange deducts this cost of operation from the receipts for shipments and then forwards the balance to the local association, which in turn divides the money among the individual growers whose fruit

made up the shipments. The members of this association now produce 45,000 carloads of oranges and lemons each year.

What this exchange has accomplished is that which our large manufacturers have done. Previously, the plans of manufacturers have not been followed owing to the difficulties connected with the perishable nature of fruits. There are 100,000,000 consumers of these California fruits. How are they to be supplied in the most economical manner? Accomplished and salaried agents are located at the various important centers, such as Minneapolis, Detroit, Pittsburgh, Philadelphia, Baltimore, Atlanta, Cincinnati, St. Louis, New Orleans, Kansas City, Denver, Seattle, Portland, San Francisco. In addition to this the organization deals through commission houses. There are 2,500 jobbers who handle these Sunkist fruits.

When we hear of great success secured by such manufacturers as the Ford Automobile Co., or of the Standard Oil Co., or of the great meat packing houses, we ask, What is the base or fundamental plan? The answer is, "Their success is largely dependent upon salesmanship." There are plenty of men who can produce through manufacturing, but there are comparatively few who can make sales profitably in a large way. Producers of fruit as organized have apparently just discovered this fact, that salesmanship is absolutely essential. We are not lacking in successful producers of various fruits. Our defect has been in salesmanship.

Last year, 1915, the peach growers in western New York, a section of the country producing probably more peaches than any other, made no money on their peach crop because they were not organized and had no successful selling system. This year they are organized and in conjunction with the New York Central railroad have been able to successfully manipulate the markets, knowing definitely which locality is in need of peaches and which locality is over-supplied, thus this year, 1916, though the peach crop is as large as last year, it yields a handsome profit.

Roughly outlined, the California plan results as follows: a train load of perhaps 50 car-loads of oranges or lemons moves eastward from California. On its way east a car-load is dropped at Salt Lake City, another car-load is dropped at Denver, Colo., another car-load is switched off at Kansas City. By the time the train-load has reached Chicago perhaps half of the cars of fruit have been switched off. From Chicago car-loads are sent northward to Minneapolis, others are dispatched to Pittsburgh, while the remainder comes on to Buffalo, Rochester, Syracuse, Boston, New York, Philadelphia and Baltimore. Rochester, N. Y., often takes two to four car-loads of oranges.

Compare this system where the shipper is informed before the train leaves California what the needs are of the eastern market and how much each distributing center can use, with the old method of dumping fruit here and there without any definite knowledge as to whether it is wanted or how much is wanted and you have some idea of the success of this fruit growers national sales organization.

Don'ts for Motorists

Don't overcrowd your car.
Don't load up with supplies you will not need.
Don't start with a car that is not in first-class running condition.
Don't try to do the impossible.
Don't race with locomotives.
Don't fail to take an extra tire or two along.
Don't disregard local regulations, even if they seem unreasonable.
Don't neglect to prepare for rain and cold.
Don't forget safety first, last and always.

Green's Fruit Grower: I beg to acknowledge the receipt of your handsome pruning knife and thank you for it.—J. H. Cornell, Pa.

Charles A. Green:—The Document Box you sent me is fine. Thank you very much.—Mrs. J. K. Thompson, N. Y.

DU PONT RED CROSS FARM POWDER



The Original and Largest Selling Farm Explosive

Why use expensive high speed dynamites when this slower, safer farm powder will save you from \$3 to \$5 per hundred pounds and for most farm uses do better work?

BIG BOOK FREE

As pioneers and leaders in developing farming with explosives our booklet gives the latest, most reliable and best illustrated instructions. Write for HAND BOOK OF EXPLOSIVES No. 31.

DEALERS WANTED

We want live dealers in towns still open. Get the orders resulting from our continuous heavy advertising. You need not carry nor handle stock. State jobber's name or bank reference when writing.

E. I. du Pont de Nemours & Company
Established 1802

World's largest makers of farm explosives
Wilmington, Delaware

ABSORBINE

TRADE MARK REG. U. S. PAT. OFF.

Reduces Strained, Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Boils, Swellings; Stops Lameness and allays pain. Heals Sores, Cuts, Bruises, Boot Chafes. It is a **SAFE ANTISEPTIC AND BERMICIDE**

Does not blister or remove the hair and horse can be worked. Pleasant to use. \$2.00 a bottle, delivered. Describe your case for special instructions and Book 5 M free. **ABSORBINE, JR.**, antiseptic liniment for mankind, reduces Strains, Painful, Knotted, Swollen Veins. Concentrated—only a few drops required at an application. Price \$1 per bottle at dealers or delivered. **W. F. YOUNG, P.O.F., 11 Temple St., Springfield, Mass.**

DESTROY TREE PESTS
Kill San Jose Scale, Apple Scab, Fungus, lice, bugs and other enemies of vegetation by spraying with **GOOD'S FISH OIL SOAP** No. 3. Does not harm the trees—Fertilizes soil and aids healthy growth. Used and endorsed by U. S. Dept. of Agriculture. **FREE**—Our valuable book on Tree and Plant Diseases. Write for it today. **JAMES GOOD, Original Maker, 953 N. Front St., Phila.**

THE GENUINE SMITH STUMP PULLERS
W. SMITH GRUBBER CO.
CATALOG FREE—DEPT. LA CRESCENT, MINN.

FORE-DOOR CUTTERS
at wholesale prices
WITH OR WITHOUT SPRINGS
Save From \$10 to \$30 by Buying Direct From The Factory
Free 1917 Catalog shows many handsome new models of our sturdy, stylish, easy-riding cutters at bargain prices. Get our free book on cutter parts, light bulbs, and rubber attachments. Address postal to **KALAMAZOO CARRIAGE AND HARNESS CO., 321 West 11th St., Kalamazoo, Mich.**

First 800 was opened sprouted twelve-e house, Every f corn, se These and fin In 18 peach tr most of gone, fo wonderf the mon twenty-e walnuts. was seed the grow ened to v lish waln and two first crop didly fl which so the Roch In the it still, a will bear a distance horse ch siderably the trees sun there where th very light tree react trees are across and far as he was in set not settin

The nut fornia nut in flavor, walnuts i that the price, next few small shuc and four, eggs. The black wal the hands. The cro 1st of Oct men will poles, and walnuts of nuts grow tree and a ting the gro thin, falls up and tal which they run about t and as the pound, this will bring l and will in between \$2, Mr. Tho which he g Rochester, that anothe says, that n now produ size as his year, but v

ENGLIS TREE

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Grow Eng This was Northern N conclusion o and the vicin "We saw have sprung C. Deming, tary and t which held tion at the alike. Some are exceptio separate the gate them." He defined as being the ing the value trees most s

Thompson's Walnut Grove

First a long trench was dug, and the 800 walnuts were covered up, and when opened it was found that 300 of them had sprouted. They were planting corn in a twelve-acre lot almost west of the big farmhouse, right along the Rochester road. Every forty-one feet they pulled out the corn, set a stake and planted a walnut. These were cultivated for several years and finally they began to grow.

In 1890 in the same lot he planted 900 peach trees and 200 plum trees, and while most of these fruit trees have long since gone, for many years they, too, proved wonderful orchards, and produced lots of the money which made it possible to wait twenty-eight years on the return from the walnuts. Eight years after this, the lot was seeded and pastured in order to check the growth of the peach trees, which threatened to wipe out the then less sturdy English walnuts. However, they kept growing, and two years ago they produced their first crops, over a hundred bushels of splendidly flavored walnuts being gathered, which sold at about 35 cents per pound on the Rochester market.

In the orchard, as Mr. Thompson calls it still, are 225 trees, and this year each will bear from one to five bushels. From a distance the trees resemble the common horse chestnut, although they are considerably darker. Just after a rain when the trees and the nuts are glistening in the sun there is no prettier farm picture anywhere than this orchard. The bark is very light, but gradually darkens as the tree reaches maturity. Many of the trees are forty feet high, and forty feet across and Mr. Thompson says that as far as he can see the only mistake he made was in setting them too close together, and not setting out enough of them.

Not so Large as Others.

The nuts do not run as large as the California nut, but are said to be vastly superior in flavor, and a noted grower of English walnuts in California has recently said that the flavor, not the size, should govern the price, which it probably will in the next few years. The nuts enclosed in a small shuck hang in bunches of two, three and four, and are about the size of small eggs. They smell much like the common black walnut, but the shuck does not stain the hands.

The crop will be harvested about the 1st of October, after the first frost. The men will pass down the rows with long poles, and beat the trees, knocking the walnuts off. It happens that most of the nuts grow in the uppermost part of the tree and a long pole is necessary. In hitting the ground, the shuck, which is very thin, falls off and the nuts are then picked up and taken to the house to dry, after which they will be taken to market. They run about thirty-five pounds to the bushel, and as the price is from 25 to 35 cents a pound, this crop on Mr. Thompson's farm will bring him in from \$7 to \$10 a bushel and will in all probability bring him in between \$2,500 and \$3,000.

Mr. Thompson states that the tree from which he got his first English walnuts in Rochester, has been gone for years, and that another tree has taken its place. He says that there is a grove in Connecticut now producing which is about the same size as his. His grove was plowed last year, but was not cultivated.

ENGLISH WALNUT BEST NUT TREE TO PLANT IN NEW YORK STATE

That is Growers' Opinion After Seeing Us

Grow English Walnuts.

This was the advice of members of the Northern Nut Growers' Association at the conclusion of their ride through Rochester and the vicinity.

"We saw hundreds of these trees which have sprung up from the seed," said Dr. W. C. Deming, of Georgetown, Conn., secretary and treasurer of the organization, which held its sixth annual convention at the Powers Hotel. "No two are alike. Some are producing walnuts that are exceptional in quality. We want to separate the good from the bad and propagate them."

He defined the purpose of the association as being the education of the public regarding the value of nuts, the developing of the trees most suitable for a locality and the

consequent inducement of their planting. About fifty of the 250 members are attending the sessions.

"Nuts are a wonderfully nourishing food," he confided. "They offer a substitute for meat, which is becoming scarcer and costlier every year."

November Work

Written for Green's Fruit Grower by F. H. Sweet, Va.

Fruit in storage is retarded or accelerated in ripening by the air and temperature. The greater the variations of temperature the poorer the fruit will keep. Open the doors of the fruit storage whenever the outside temperature is cooler than that within, protecting the fruit at all times from becoming frozen.

If the fruit trees are infested with San Jose scale, the last of this month is the time to give the first spraying. After the leaves fall, prepare the trees for treatment by cutting away all dead and badly damaged wood. Infested trees should be headed in severely. Burn the prunings immediately and give a thorough spraying, using lime and sulphur or one of the miscible oils.

Planting of all except stone fruits is advisable this month. Prepare the soil well by deep plowing or spading, and in setting the trees be sure to get only fertile soil about the roots in planting, leaving no holes for either water or air to work des-



How humiliating for a big man to be compelled to concede that his little boy has beaten him catching fish. Notice the downcast, vanquished expression on the face of the man as compared with the more joyous, sanguine and conquering hero expression on the face of the boy, who has the largest string of fish.

truction about the roots. Trees desired for spring planting are best secured in the fall and heeled-in on the premises. Provide a light winter protection for them of straw or evergreen boughs.

If convenient, trim the grape-vines as soon as the leaves have fallen. Trim out the old wood as well as much of the present season's growth. A vine carrying from fifty to sixty buds after pruning will meet all the demands of the home fruit culturist.

If the lawn is an old one in good condition, no winter protection will be required. The practice of spreading rotted manure on lawns has been carried to extremes. Its presence is detrimental to all lawns, excepting those laid down in early fall. If the grass plants need fertilizing, apply concentrated manures in spring.

Hardy bulbs do well, even if planted at this late date. The beds will require a mulch this month. One of strawy manure, leaves or litter will answer the purpose. Three or four inches is a sufficient covering for ordinary winter conditions. Place the material over the bed evenly and allow it to extend several inches beyond the planted area.

The plants that have been placed in the cellar or storage pits are not expected to grow but merely remain dormant until spring. Give only enough water to keep them alive, and as cool a temperature without freezing as possible.

The important things to do about the

house are in preparation for winter. Put on storm doors, have leaky roofs and gutters repaired, provideshelter for all farm and garden tools. Get a good supply of cordwood on hand for the open fire-places. Replace broken glass in the windows. Do any digging for drains before the ground freezes. Make a general round-up of the place and think of the things that you will wish you had done when the snow is high over the fence.

About Packing Boxed Apples

Our canvas sorting tables are sixteen feet long with two divisions, making a five foot space at each end for the Fancy apples and six foot center for the Choice grade, says Geo. H. West in Denver Field and Farm.

These tables have a removable board on one side set on bases—1 x12 x16, six—a foot below the table top. This board is kept filled with field boxes of apples from the orchard. Four women sorters work at each table standing one at each side of the under partitions, separating the Fancy and

Choice, putting the good apples into their respective grades and dropping the culls into boxes on the ground below. For sizes we use hardwood gauge boards, some eight inches long each having round holes of two and one quarter inches and two and one-half inches diameter.

The apples are tested stem upward and those under sized pass through to the cull boxes. Each sorter has one of these gauge boards which in use lies flat under the field box from which she is sorting. The projecting end with the proper sized hole is just above the cull box. This permits the use of both hands which we regard as preferable to the gauge rings. The packers work at the other side of the sorting table, their places being at each end and at the middle. Two or three good packers can generally keep up with the work of four sorters.

Look at man. When he is a babe everybody wants to kiss him. When he is a man everybody wants to kick him.

Florida Farms in Palm Beach County

Any size farms from one acre up, also Orange and Grapefruit groves, Town lots, Cottages and Bungalows, on easy terms. Ideal land for farming, gardening, fruit growing, poultry keeping, dairying, etc. Three and four crops are often grown on the same land in one year. Now is the time to plan for a fine winter home. Payments of one dollar per month will buy a town lot. Fine Cottages and Bungalows ranging in price from \$400 to \$1000.00.

E. W. PHILO, 9 Lake St.,

Elmira, New York

When you buy Prince Albert you are getting quality!

Quick as that P. A. flavor strikes-in, you'll realize you've received all you paid for in tobacco quality—not coupons or premiums! State or national restrictions on coupons or premiums can in no way affect Prince Albert's sale. Quality has been the only inducement Prince Albert has ever offered smokers!

You've heard many an earful about the Prince Albert patented process that cuts out bite and parch and lets you smoke your fill without a comeback! It proves out every hour of the day!

PRINCE ALBERT
the national joy smoke

will open the doors wide for you to come in on a good time with a jimmy pipe or makin's cigarettes. You'll think the smoke-lid is off for fair, firing up as the smoke-spirit strikes you—without a regret!

All that delight can be yours soon as you lay in a stock of P. A. and jam that friendly old pipe brimful or roll some cigarettes—and strike fire! This tip is worth a lot in happiness and contentment to every man who knows what can be gotten out of a chummy pipe or a cigarette with P. A. for "packing."

Prince Albert can be had everywhere tobacco is sold in tippy red bags, for tidy red tins, 10c; handsome pound and half-pound tin humidors—and that clever pounce crystal-glass humidor with sponge-moistener top that keeps the tobacco in such fine shape, always!



R. J. Reynolds Tobacco Co.
Winston-Salem, N. C.

MR. SHEARER'S ORCHARD

He devotes some time to fruit culture. At first his soil was even too poor for peach trees. Now he has some eighty peach trees. They are well cared for and thoroughly sprayed. He understands the peach tree, says "Pennsylvania Farmer." One of his trees, in six years produced \$100 worth of peaches. This was an Elberta. The best crop this tree produced in one year was sold for \$31.75. Two Yellow Transparent apple trees have produced \$25 crops on several occasions. Cherries also bring good returns for him.

He does not neglect the poultry yard. Two hundred fowls are constantly on hand. The roosters hatched in the spring are sold as early in the season as possible to Reading cafes, for never less than 30 cents a pound.

The average egg supply is 139 eggs per year per hen. He figures to make a net profit of \$1 per hen every year. With the exception of one cow, the milk and butter being used for their own family, this is all the live stock on the premises.

All this on two acres. In dollars and cents, at present it amounts to \$1,500 annually. Ten years ago the annual value was \$1,200. Since then there has been a 25 per cent increase in price to the consumer. This is practically profit. The family lives first from the farm and this is not accounted for in the net returns. Mr. and Mrs. Shearer do their own work, with an occasional help for Mrs. Shearer. The debts, of course, have been paid. Favorable location, owing that this farm is now surrounded on three sides by a nice suburban town, would, if the

farm was cut into building lots, sell for several times its original cost, and leave the homestead still intact to spend their remaining days of life.

Marketing the Apple Crop

The question of grading and packing is one for the most serious consideration in the profitable marketing of fruit. Poor grading and packing is one of the big troubles prevalent in the Eastern apple markets, says "Pennsylvania Farmer." It is a trouble, however, that could easily be remedied if the growers and shippers would consider that it is a vital financial problem.

The great cry of the weekly reports is for fancy, well graded, and well packed fruit. Such reports as the following are only too common: "Most of the supplies came from common storage, and showed only ordinary to choice quality. The supply of strictly fancy apples was very light, and commanded a premium;" "Greenings badly scalded—strictly fancy fruit in big demand;" "Trade quiet and only strictly fancy fruit brought full prices;" "Strong demand for choice, well graded fruit;" "Fancy fruit held firm;" "High grade fruit wanted, poor fruit a drag on the market;" "Ordinary stock in over-supply;" "Strictly fancy and choice fruit firm—bulk of offerings of ordinary kind, and prices are in buyer's favor;" "Most of stock common—fancy stock wanted;" "Fancy fruit cleaned up—the bulk is of ordinary stock which is a drag;" "Too much common stock on market;" "Fancy fruit holding firm prices, poor grades weak."

These comments on market conditions are taken at random from the price quotations and prove what a big factor proper grading and packing is on the markets. Note how often the words "strictly fancy" and "well graded" appear thruout the quotations. Naturally, during the weeks when the bulk of the offerings are of ordinary and poor stock the prices drop accordingly, and when the offerings are well graded and fancy to choice stock the prices hold good. These trade reports should be an incentive to the grower and shipper to properly grade and pack his fruit, to grade and pack it honestly, uniformly and regularly. The fruit grower who does not so grade and pack his apples not only hurts himself by receiving low prices, but hurts the business by demoralizing the market for the man who is striving to put out well graded and well packed apples.

No doubt the apple grading and packing laws will in time prevent the flooding of the markets with poorly graded fruit. Why should not the grower at once voluntarily put a stop to this wasteful and short-sighted practice? In this respect the western apple grower surpasses the eastern grower. Western grades and packs are, as a rule, honest and uniform. The commission men and auction companies know that the apples received from the majority of these western growers are properly graded and packed, and that they can therefore depend upon their shipments from season to season.

Read "Bees, Poultry and Fruit" on the inside back cover of this number.

ELEVEN EXPRESS CARS LOADED WITH PRUNES

Over 142 Tons Included in the Shipment, Value Over Fifteen Thousand

Walla Walla valley history was cut in bold letters when a special express train of 11 cars loaded to capacity with the valley's choicest prunes pulled out of the local station, bound directly for Chicago. The big train, made up entirely of Walla Walla valley prunes, rushed eastward at unprecedented speed, and not a single stop would be made along the way, except at division points to change train crews. The fruit will reach Chicago in the afternoon and will be upon the market that evening.

Loaded in the 11 cars were 284,570 pounds of crated prunes, slightly over 142 tons. Every box of the fruit was fancy stock and will bring over \$100 per ton on the Chicago market, and about \$55 net to the grower.

Seven of the cars were from Blalock and Freewater, while the other four were from Walla Walla. The express charges alone, for a quality of service which sets a precedent in the valley, will total over \$5,900. It is thought, however, that the scarcity of the fruit on the Chicago market will steady quotations there, and local growers will net a handsome profit. The value of the train-

load of fruit in the middle west will likely reach \$15,000.

While the cars are nominally headed for Chicago, a number of them may be dropped at St. Paul and Minneapolis if the market appears strong, while others may be sent to other middle western cities. The large number of cars, however, will go to the big middle western metropolis.

(Note: It is not unusual for train loads similar to the above of peaches, etc., to be sent out daily from the Rochester New York district.)

Special Course for Fruit Growers

(From the New York State College of Agriculture at Cornell University)

A practical course for fruit growers, beginning November 8, and continuing twelve weeks, is offered free to the residents of New York by the State College of Agriculture at Cornell University. Those who have charge of the course feel that the great value and the complicated nature of the State's fruit industry warrants a large response from young men intending to make their living in the fruit business.

It is announced that to make the course complete and well rounded it will include instruction in the subjects of soils, plant diseases, insect enemies, as well as in fruit growing itself.

Fruit trees on farms, even though not in bearing, always help its selling value.

Do your transplanting of lilacs in the fall for best results.

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CHARLES A. KAUNE
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DEPT. 25 CLEVELAND, OHIO

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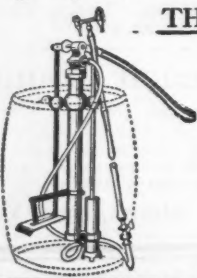
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BENTON HARBOR, MICH.

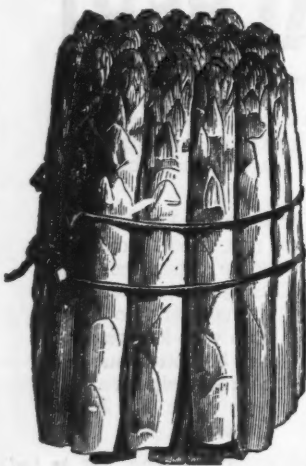
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Everything for the garden and orchard, including implements for spraying, etc. Send for free catalog.

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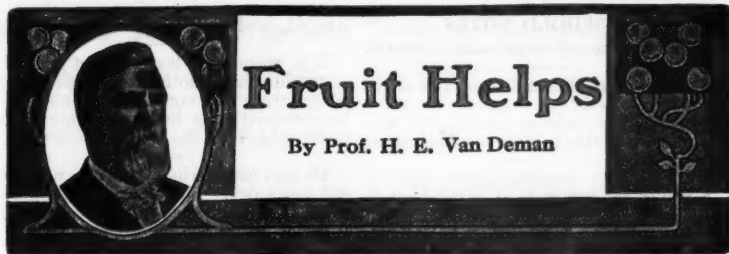
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Fruit Helps

By Prof. H. E. Van Deman

Tree Planting

The tree planting public may not know, or at least, may not realize the very depressing times that the nurserymen have endured for the last few years. Prices have been so low that many could barely afford to keep in the business, and some could not do that. It has been a great time for the planters, however; and they have been able to set orchards, vineyards, etc., at a mere nominal cost for the stock planted.

This has come about from two causes: The very depressed condition of the finances of the country, and the large production of trees and plants. Great financial fluctuations are not controllable by any class of business men; but any line of trade is apt to regulate itself; and it is so with the nursery business. When too many trees are produced there will be fewer of them grown. This is just the case now. There are fewer trees and other nursery stock in the country than for several years past, and the price is likely to raise. This seems quite probable, especially in view of the additional fact that times are better. Also, farmers are getting to understand, more and more, that fruit is a better paying crop than grain, to sell off the farm. Therefore, if nursery stock should rise in price there need be no surprise. It takes several years to grow trees; which makes it sure that an over-supply cannot be put upon the market again without some delay, now is a good time to buy.

What is a Good Nursery Tree?

It is not necessarily the largest one. I have tried that in my own planting to my thorough satisfaction. In setting orchards from nursery rows grown on my own farm I have had abundant opportunity to watch the behavior of the different ages, styles and classes of trees, up to bearing age. It matters more as to the kind of treatment the tree is given after it is set in the orchard, than how old or how big it was when set. This statement, of course, is based upon the presumption that the soil was suitable and the setting done well. Theoretically, the younger the tree the less the shock to it by removal. With good care, quite old and large trees may be safely transplanted, and grow in their new positions quite as well as if they had been younger and smaller. This careful treatment they do not get in very many cases; and, much as I dislike to say it, the planter is more often to blame than the nurseryman.

If the tree is healthy a medium sized one, of its age, is better than an over-grown one. These very large trees are apt to be softer in wood, from an excess of nitrogen in the soil, than those not so large. The roots will not callous so well, nor will the tops endure the draft upon its vitality so well until the tree is firmly established in its new home.

A stocky tree with a thick body and strong, evenly balanced branches, is better than a taller one of a slender habit. Nor do I like one that begins to branch far from the ground. Planters ought to know that there are some varieties of all kinds of fruit that do not make thrifty, showy nursery trees; yet they do well in the orchard. The same principle applies to bush fruits and other plants.

Trees

I think that I shall never see
A poem lovely as a tree.
A tree whose hungry mouth is prest
Against the earth's sweet flowing breast;
A tree that looks at God all day,
And lifts her leafy arms to pray;
A tree that may in summer wear
A nest of robins in her hair;
Upon whose bosom snow has lain;
Who intimately lives with rain.
Poems are made by fools like me,
But only God can make a tree.

—Joyce Kilmer in "Trees and Other Poems."

Wood Ashes Valuable as Fertilizer

Wood ashes, which when unleached contain about five per cent potash and 30 per cent lime, are one means the farmer has for preparing against the shortage of potash salts which formerly came from Germany. The amount of potash varies somewhat, being higher in hard woods.

The potash is readily soluble in water and will be largely leached out if the ashes are not protected from rains. Farmers burning wood should store the ashes during the winter and thus furnish themselves with at least a small supply of this fertilizer that the war has made so high in price.

The Ohio Experiment Station advises the use of 400 to 500 pounds per acre of a mixture of two parts of wood ashes and one part of either acid phosphate or bonemeal. Such a fertilizer may be used to advantage on the spring crops, while the lime contained in the ashes will have a beneficial effect on acid soils. Experiments at the Station show that potash does not produce its full effect except when reinforced with phosphorus.

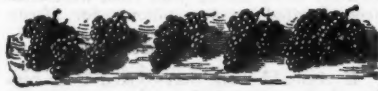
Yellow Transparent Apple

This Russian apple is a standard of earliness. The fruit matures with or before the old and well-known Early Harvest. Like Early Harvest, and as suggested by its name, it is devoid of high colors, when well grown, being a strikingly waxy, light yellow fruit. It is of medium size, regular, roundish conical form, and uniform in size and shape.

The tree is a vigorous, upright grower, remarkably precocious as a bearer, very hardy in common with all the Russian varieties, but like these, is subject to blight, which is its worst enemy in the north where its hardiness makes it popular as a summer variety. The fruit is essentially a near-market and amateur variety. Like all yellow skinned apples the slightest bruise is apparent, and the thinness of its skin makes the most careful handling imperative. It should therefore be marketed as a fancy variety, in small packages. Handled in this way, and used as a filler for large growing, longer-lived varieties, Yellow Transparent is likely to be profitable where good summer market facilities obtain. The tree is not long lived, and on account of its early bearing habits as remarkably adapted for the purpose for which a filler is required.—"National Nurseryman."

Grape Culture

Grapes will grow almost anywhere, and are very sure bearers. They are particularly adapted to the farm gardens, or even have a place in the yard along the fence, or trained over a trellis. They may be planted either in the fall or in the spring, but spring planting is to be preferred. Vines one or two years old may be used, and the soil firmed about the roots. Cultivate frequently during the summer. Wood ashes supply the best fertilizer for grapes, and as much as half a bushel can be used for each vine. Keep the vines growing nicely and for the first season do no pruning. Early the second spring cut back the strongest canes to three or four buds, and remove all the others. In the spring, after the buds have started, rub off all but two of the strongest and train these as desired. After the second year, thin out all superfluous wood, leaving enough to bear thirty or forty clusters on each vine. There are a great many systems of pruning, but the simplest is the one to be adopted for the farm garden. A frame trellis, or wire strung on properly braced posts, answers the purpose very nicely. There are a great number of varieties, but some of the old standbys are the safest.



Seven Sentence Sermons

If a good face is a letter of recommendation, a good heart is a letter of credit.—Bulwer-Lytton.

A person may cause evil to others not only by his actions but by his inactions.—J. S. Mill.

O year that is coming, bring with you
Some virtue of which I have need;
More patience to bear,
And more kindness to share,
And more love that is true love indeed.
—Burton H. Winslow.

Every failure teaches a man something, if he will learn.—Dickens.

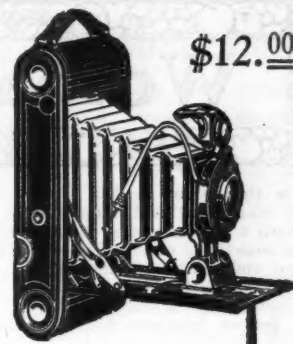
For our light affliction which is for the moment, worketh for us more and more exceedingly an eternal weight of glory.—2 Cor. 4: 17.

Not wealth, but the ability to meet difficult conditions, is the measure of a man.—Anon.

Recent studies carried on by the State College of Forestry at Syracuse have shown that the high prices charged for fuel wood in cities has resulted largely from high freight rates. With cheaper rates for the hauling of cord-wood from such centers as the Adirondacks and Catskills, it will be possible not only to have more wood for fuel and for fireplace use but the removal of cord-wood will often help in disposing of material in the forest that is wasted.

Trees along the fences add beauty to the surroundings. They attract our useful birds and often serve them as a retreat from storms and birds of prey.

Why not plant small fruits. They are as easy to grow as vegetables, and you get reasonably quick results.



A new KODAK
in a new size

The 2C Autographic Jr.

Just as surely as the 3A (post card size) picture displaced the 4 x 5, this 2C, for pictures 2 1/2 x 4 1/4 inches, will displace the 3 1/2 x 4 1/4. The elongated shape, used horizontally is better for landscapes—it doesn't waste film on sky and foreground. It is better for portraits when used vertically for it gives the high, narrow picture. It gives more picture for the area than is usually possible in a square—and the shape of the picture is far more pleasing.

And this elongated shape in the picture makes possible a slim, thin, easily pocketed camera. The 2C Autographic Kodak Junior has a capacity of ten exposures without reloading. It has the Kodak Ball Bearing shutter with cable release, working at speeds of 1-25, 1-50 and 1-100 of a second and of course the usual "bulb" and time actions. The camera has brilliant reversible finder, two tripod sockets, black leather bellows, is covered with fine grain leather, is well made and beautifully finished.

No. 2C Autographic Kodak Jr., meniscus achromatic lens, - \$12.00
Ditto, with Rapid Rectilinear lens, - 14.00

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The big, crop-building advantages of Fruit-Fog are due solely to its amazing fineness and adhering power—not to force. Fruit-Fog easily penetrates into most minute crevices of bark—under bud scales—beneath fleshy stamens of apple blossoms. It seeks out the hidden pests—filters into the innermost sections of the foliage; gets at the bottom of the leaves as well as the top.

Fruit-Fog literally envelopes everything—like the finest mist. It deposits a light film of solution—just enough to exterminate all diseases and insects, without injury to the foliage. Fruit-Fog is so vapory that no drops form. No solution runs away. This waste and loss is saved. Less solution than coarse, low-pressure sprays and is therefore more economical; is easily directed; requires less time to apply. Perfect control is secured. Healthy, profitable fruit is the result. Thousands of orchardists owe their big fruit crops to Fruit-Fog.

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Every Hayes Power Sprayer is tested to 500 pounds and is GUARANTEED to maintain 300 lbs. working pressure. We make 50 Styles of Hand and Power Sprayers for orchards, field crops, shade trees, hops, poultry, painting, home and garden use. Complete equipment.

Spraying Guide Free

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Tells vital facts about spraying. How to spray; what solutions to use for different pests and seasons. Sent FREE with valuable book on Fruit-Fog and 64 page catalog.

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"It is the happy faculty
Of woman far and wide,
To turn a cot or palace
To something else beside,—
Where children dear and husband tired
With willing footsteps come;
A place of rest where love abides,
A perfect kingdom—home."—Selected.

LUNCHES FOR THE RURAL SCHOOL

The University of Nebraska College of Agriculture

Wherever a warm food has been added to the cold lunch at school, parents and teachers have seen good results. Greater interest in school work, better grades, better health and less need of discipline, particularly in the latter part of the day, are immediate results says the Extension Bulletin No. 32. The partaking of a lunch, served in a sanitary, attractive manner, may be a real and much needed part of an education. The tactful teacher can do much to get better standards of sanitation by encouraging clean hands and a clean, orderly room in the preparation for the lunch. The informal good times enjoyed while eating together at the noon hour have had equally good results with the diffident child, the boisterous boy, and those pupils needing American standards of home life. Cooking at school invariably encourages the girl to do more of this work at home.

It cannot be recommended too strongly that a modest beginning be made until the interest of the parents, on one hand and the ability of the teacher to organize the work well, on the other hand, assure the success of its development on a larger plane.

The aim must be to have a sanitary, convenient equipment which contains nothing that cannot be copied in the homes of the pupils. If it is planned to prepare only a small variety of foods for the warm lunch, a very few utensils and the heating stove will give good results in the hands of a capable teacher.

The method of obtaining supplies must be decided in conference with the patrons.

In a few cases, the school board and a number of the patrons have furnished money with which the teacher has bought materials. In more cases, it has been found satisfactory for parents to furnish food.

When the dish to be prepared at school time has been decided upon, the pupils should be given suggestions for the remainder of the lunch. Dietetics can be taught in this way. A very elementary knowledge of food composition will make them object to bringing from home, cheese or meat for a lunch to which baked beans are added at school. An appreciation of fruit and vegetables in the diet may lead to a greater variety in the home garden the next spring.

Suggested Luncheon Dishes—Cocoa, cereals, cheese toast, macaroni with cheese, swelled rice pudding, tapioca cream, corn-starch pudding, scrambled eggs, cottage pie, clear tomato soup, cream of cabbage soup, cream of tomato soup, peas, asparagus, baked beans, scalloped tomatoes, buttered beets, potatoes on half shell, string beans.

Farmer's Bulletins may be obtained free by writing to one's Senator or Representative in Congress. If the request is countersigned by the county superintendent, a rural school teacher may be able to obtain copies of a few bulletins for each pupil in the school. The following bulletins are suggested, as they contain recipes for the preparation of foods as well as a discussion of the production or manufacture and the dietetic value.

No. 487—Cheese and Its Economical Uses in the Diet.

No. 106—Cheese Making on the Farm.

No. 526—Mutton and Its Value in the Diet.

No. 391—Economical Use of Meat in the Home.

No. 565—Corn Meal as a Food and Ways of Using it.

No. 559—Use of Corn, Kafir and Cow-peas in the Home.

No. 553—Pop Corn for the Home.
No. 389—Bread and Bread Making.
No. 359—Canning Vegetables in the Home.

No. 521—Canning Tomatoes at Home and in Club Work.

No. 256—Preparation of Vegetables for the Table.

No. 203—Canned Fruit, Preserves and Jellies.

Fun at the Dinner Table

Surely we should not bring to the table at meal time any unpleasant topic of conversation, but this is more easily said than done. The temptation is great to say critical or unpleasant things at the table, for it is about the only time each day when all the members of the family are gathered together at one hour. You have not been able to find your summer or your winter underwear, or your sleeping shirt, or your fresh stockings, and you feel tempted to reprimand your wife mildly on this score at the breakfast table. Or Susan's beau may have remained very late last night, or Susan may have been indulging in excessive social engagements and you have been wanting an opportunity to bring up this subject, and here at meal time you have an opportunity.

Then again, the remarks or the conduct of an aggravating neighbor is fretting you and you feel like relieving yourself on this subject at the dinner table. Or somebody has slighted you. You have not received proper recognition at some social function, or in passing upon the street, and where is there a better opportunity to dilate about the general worthlessness of mankind than at the evening meal. Then there is the continual thumping of a neighbor's piano as you sit upon the porch, which has disturbed you for many seasons past. How shall you refrain from alluding to this as you gather around the supper table. Then there are the sick friends, those who have suffered great pain, those who have had surgical operations performed, those who are near the portals of death, or those who have actually passed beyond the border land. You want some opportunity for talking about these people, and naturally the thoughts come at mealtime, casting a gloom over the repast, which should be joyful and free from moody suggestions. If you have heard or read a good story bring one of the bright incidents to the table. If something particularly happy or joyful has occurred during the day tell it at the table.

By the way, do not reach across the table from four to six feet to get a fresh biscuit or doughnut. Give somebody the pleasure of passing the plate. A friend gives me a novel thought as regards passing the plate.

He says, his father was a strict disciplinarian in his family affairs. He had ready at table a stick something like a walking cane. If his boys were forgetful about passing the plate to others, that is helping to wait upon the table and watching to see if each person was well supplied, the first thing the delinquent member would discover would be a crack on his knuckles from this stick.—C. A. Green.

The livers of ten codfish are needed to produce a gallon of oil.

HOUSEHOLD NOTES

Weak vinegar will clean mica in stoves.

An oyster buried near the roots of a fern will aid its growth?

A safety razor blade is the handiest ripper you can have?

A velvet hat can be kept in good condition by wiping it with a piece of black stocking after brushing.

Fruits either fresh or preserved must not be counted as a luxury, but rather as a necessity.

If you heat a lemon in the oven before squeezing it you will have more juice and a better remedy for a cold?

Sliced raw potatoes can be baked instead of fried if put in a hot oven, and they will be crisp and good.

When roasting a turkey, stuff the breast with pared sweet potatoes; they get a fine flavor from the juice.

In opening canned goods pour out the contents immediately, though but a portion is to be used. The air acting on the metal poisons the contents.

It is well to know that a little salt is often a very effective remedy for indigestion and quickly relieves many cases.

When you are tired it will rest you won-

stroyed, and they are not so digestible.

If a spoonful of borax be put in the last water in which clothes are rinsed it will whiten them very much. The borax should be dissolved in a little hot water before being added to the rinsing water.

Do not water window plants, unless the soil looks dry. Put enough water on the plant to moisten the soil all through. Too frequent watering will sour the soil.

The serving of the daily meals in the home should be observed with as much care as though it was a company affair. Good table manners breed good manners in other lines of etiquette.

When making egg custard pies, always heat the milk to the boiling point before mixing it with the eggs. If this rule is followed the under-crust will always be crisp.

After rinsing a bed spread do not put it through the wringer, but hang it on the line dripping wet. It will dry without a crease and will not require ironing. The fringe will be just as fluffy as when new.

Trees Make Home Happier

One can have a shelter or abode without trees, but no home which will appeal to the wife and to which the children will look back with fond remembrances in after years, is truly a home without the sense of beauty, repose and protection afforded by trees and shrubbery.

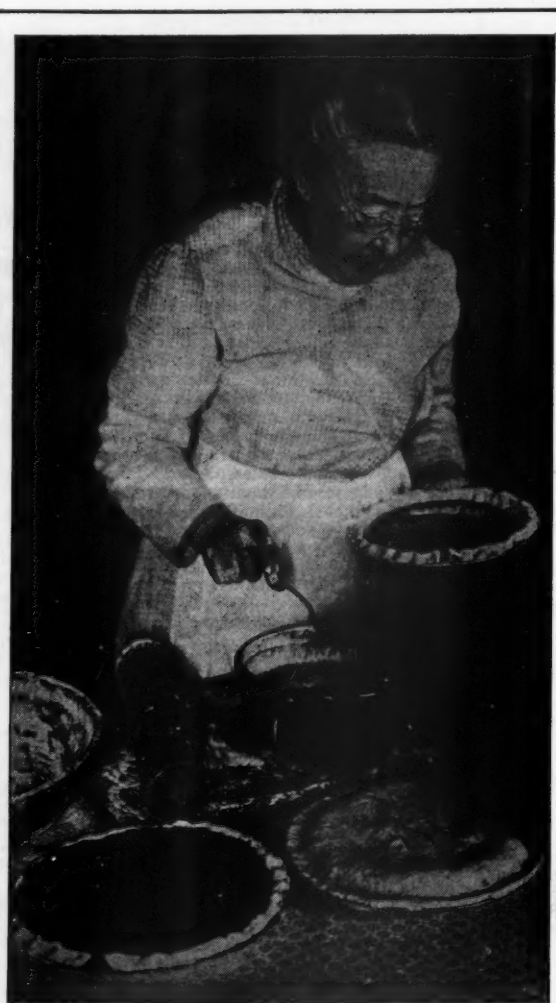
The trees and shrubbery should be located on the grounds to give certain effects or make a part of a living picture. The fruit orchard can be planted at regular intervals in order to be conveniently cultivated and to use fully the ground occupied, but the trees in the yard should not be spaced like orchard trees; they should be grouped in order to make vistas, screen unsightly out-buildings, afford shade where needed, add touches of color to the picture, provide a pleasing "sky line," and to lend variety and interest to the home surroundings. Trees and shrubbery are the setting of the jewel; the quality of the jewel is not dependent upon its size, but upon the spirit, the purity, the harmony which dwells within. Yet no jewel is shown to best advantage without a suitable setting, and no home is fully a home without its setting of trees and shrubs.—W. J. Morrill, State Forester, Colorado Agricultural College.

Old Chimney Places Survival of Old 'Ingle- Neuk' is Our 'Cosy Corner' London Globe

Those who have been privileged to sit in a farm-house chimney corner will never forget its aspect and surroundings—the rude settees ranged on each side, the huge fire of blazing logs on the broad hearth, the enormous kettle or crock suspended from the hanger, and the long, narrow oven, emitting a fragrant smell of baking bread—all these will be familiar to those who have enjoyed its warmth and comfort.

Over the flaming logs and crackling fagots the wide chimney looms, up which you can see the sky in day-time and the stars on a frosty night when the fire has burned low and you crane forward and look upward.

Enclosed find one dollar for three years' subscription to Green's Fruit Grower. I have taken it for twenty-five years and would not be without it.—Edgar Van Sickert, New York.



This is said to be a nation of pie eaters. Certainly the American people could not be induced to give up the enticing pie. Some have said that pies are hard to digest. This is true of some pies. The pies of my heart have such a thin and flakey crust and are filled with such digestible food as apples or blackberries, cherries or peaches that I cannot consider them indigestible.

derfully to lie flat on your back with your feet elevated on two pillows, for fifteen minutes.

If vegetables are over-cooked their texture toughens, their flavor is somewhat de-

1861



1870—Ladies' 42 and 44 yards of 50 cents.
1856—Junior 10 years. It for a 14-year.
1879—Girls' 6, 8, 10 and 44-inch measure.
1873—Waist 187 inches 44 inches 22, 24, 26. It will require make this measure plates dress cents FOR
1861—Dress Cut in 3 6 yards of Price, 10 c
1874—Waist 187 inches bus 22, 24, 26 requires 8 medium s measure separate p
1860—Girl's years. It for a 6-year
1886—Ladies' 6 sizes: measure material.
Order per inches. A Rochester,

Patterns for Women Who Sew.



1870—Ladies' Coat. Cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 6 yards of 54-inch material for a 36-inch size. Price, 10 cents.

1856—Junior's Coat. Cut in 3 sizes: 12, 14 and 16 years. It requires 4-1/2 yards of 54-inch material for a 14-year size. Price, 10 cents.

1870—Girls' One-Piece Yoke Dress. Cut in 4 sizes: 6, 8, 10 and 12 years. It requires 3-1/4 yards of 44-inch material for an 8-year size. Price, 10 cents.

1873—Waist. 1877—Skirt. A Fashionable Gown. Waist 1873 cut in 6 sizes: 34, 36, 38, 40, 42 and 44 inches bust measure. Skirt 1877 cut in 6 sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It will require 8-1/2 yards of 36-inch material to make this costume for a medium size. The skirt measures about 3-7/8 yards at its lower edge, with plaits drawn out. TWO separate patterns, 10 cents FOR EACH pattern.

1861—Dress for Misses and Young Women. Cut in 3 sizes: 16, 18 and 20 years. It requires 6 yards of 44-inch material for a 16-year size. Price, 10 cents.

1874—Waist. 1860—Skirt. Ladies' Costume. Waist 1874 cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. Skirt 1860 cut in 6 sizes: 20, 22, 24, 26, 28 and 30 inches waist measure. It requires 3-3/8 yards of 36-inch material for a medium size, for the entire dress. The skirt measures about 3-1/2 yards at the foot. TWO separate patterns, 10 cents FOR EACH pattern.

1860—Girl's Dress. Cut in 4 sizes: 2, 4, 6 and 8 years. It requires 2-3/4 yards of 44-inch material for a 6-year size. Price, 10 cents.

1866—Ladies' Dressing or House Sack. Cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. Size 36 will require 3-1/4 yards of 44-inch material. Price, 10 cents.

Order patterns by number and give size in inches. Address Green's Fruit Grower Co., Rochester, N. Y.

We may live without poetry, music and art; We may live without conscience, and live without heart; We may live without friends; we may live without books; But civilized man cannot live without cooks. —Owen Meredith Lucile.

Thanksgiving Menu

Olives Celery Pickles
Roast Turkey or Chicken
Mashed Potatoes
Baked Onions Hubbard Squash
Cranberry Jelly
Tomato Salad
Pumpkin Pie Baked Indian Pudding
Nuts Fruit Mints
Coffee

Celery Soup

One pint of milk, one tablespoonful of flour, one tablespoonful of butter, one head of celery and one small onion. Boil celery and onion in one pint of water forty-five minutes. Boil the milk, mix flour and butter together and add to the boiling milk, cook ten minutes. Mash the celery in the water in which it has been boiled and stir into the boiling milk. Season with salt and pepper, strain and serve.

Roast Turkey

The secret of having good roast turkey is to baste it often and cook it long enough. Wash the turkey thoroughly and rub the inside and out with salt and pepper. Stuff and sew up nicely and tie the legs. It is well to allow a turkey to remain some time stuffed before cooking. Pour a little water in the bottom of the roasting pan and baste every fifteen minutes. Just before taking from the oven, baste with melted butter and sprinkle with flour. While the turkey is roasting, boil the giblets well. Chop them fine and add to the brown gravy made in the roasting pan after removing the turkey.

Turkey Dressing

Moisten stale bread with water, drain dry. Melt three tablespoons of butter in a saucepan, add bread, two tablespoons chopped parsley, teaspoon of sage, salt and pepper to taste. A cup of sausage meat added to the dressing is a great improvement.

Oyster Dressing

One quart of oysters, one pint of dry bread crumbs, large tablespoon butter, one stalk celery chopped, salt and pepper, mix with oyster juice.

Baked Onions

Peel six large onions and boil fifteen minutes. Drain off and cover with cold water for a minute. When cool remove to a baking dish, sprinkle with salt, pepper and pour over a cup of hot milk and a tablespoon of butter in small bits. Cover with buttered paper and bake until tender.

Cranberry Jelly

Pick over and wash a quart of cranberries, stew in porcelain-lined kettle with one and one-half cups water until soft. Press all but skins through colander or sieve. Return pulp and juice to the kettle, add a heaping cup of granulated sugar, stir until dissolved and then pour into molds and let cool until solid enough to turn out.

Hubbard Squash

Wash the outside and saw or chop into quarters; remove the seeds and bake or steam about an hour; scoop out the flesh, mash and season with butter, salt and pepper and send to the table.

It may also be served in the shells on a platter, nicely seasoned and covered with a napkin. Serve by scooping out a tablespoonful to each plate.

Tomato Salad—(Winter)

Soak three-fourths box of gelatine, scald one pint strained tomato, season with salt, paprika and one-half teaspoonful of sugar. Pour this hot upon the gelatine, stir well and fill cup (as moulds) one-third full. Serve on lettuce with mayonnaise dressing.

Pumpkin Pie

To one pint of pumpkin stewed and pressed through a sieve add three well beaten eggs, one cup of sugar, pinch of salt, nutmeg, cinnamon, ginger, allspice and cloves to taste and one quart of rich milk. This will make two small pies. Bake in a medium oven until the custard is firm.

Baked Indian Pudding

Scald one quart of milk. When boiling

hot pour it over one cup of corn meal, stir thoroughly, add one cup of molasses, half teaspoonful of salt, one tablespoonful of butter. Let stand until cool, then add one quart of cold milk, stir well and bake in moderate oven three hours. Serve with hard sauce, made of butter and sugar.

HOW THE POTATO MAY BE MADE DELICIOUS
Many Ways in which Tubers May be Served than Three Usual Ones

The common white potato which finds a place on everybody's table three hundred and sixty-five days in each year, is commonly cooked in one of three ways, occasionally varied by a bag of fried ones from the delicatessen shop, says N. Y. Sun. But even a boiled potato may by proper drying off after boiling be brought to a state of delicious mealiness, far, far different from the soggy lump so often offered you. Even the baked potato becomes a finer thing, if, before serving, it is held in a towel and carefully pinched. The skin must not be broken, but the potato must be made all soft so that when it is broken open at the table it rolls out quite soft and mealy.

The flavoring of potato is another thing that few cooks achieve success in. Yet a pinch of sugar and a scraping of nutmeg will give a delicacy that is very pleasurable to the palate, but not strong enough so that you can tell why the dish tastes so well.

Creamed potatoes may be a dish fit for the gods, or the pigs, it is for you to choose which. If the potatoes are well boiled, chopped fine and allowed to cool you are beginning the right way. Then make a cream sauce, with cream, not milk, add the little bit of nutmeg and sugar mentioned before, then put in the potato just long enough before serving to get it piping hot. This is far different from the flour-paste dish which commonly masquerades under the name of creamed potatoes.

Improve Home-Cured Meat

Don't let the cured meat get too salty. The practice of leaving the hams and bacon in the brine or dry cure for two or three months will always give meat that is too salty to be eaten with any relish. Two days for each pound weight of piece will cure the meat thoroughly so that it will keep all summer and will usually make it so salty that it will need some freshening before using. Shoulders that are to be used up before hot weather can be cured in a considerably less length of time. Before the meat is to be smoked, soak it two or three hours in warm water. If it is too salty soak for a full twenty-four hours and then send to the smoke house.—P. F. Trowbridge, Missouri Agricultural Experiment Station.

Hub—"Tido has been hit by a taxi." Wife—"Oh, dear! Have you sent for the veterinary?" Hub—"No; for the taxidermist."—Boston "Transcript."

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Poultry Dept.

Feeds for Hens

A poultryman writing on chickens from the farm standpoint says that, if he has corn, wheat, oats and beef-meal, he has the whole question of feed in a nutshell. Some by-products are needed, of course, but they are found on every farm. All the milk that a chicken will consume is none too much; it not only promotes nourishment, but health as well. A successful farmer said that, the more milk his hogs drank, the more corn they would consume and assimilate as well. And with any kind of stock it is not how little feed they can consume, but how much they can turn into high-priced eggs and milk and meat.

Hens Fed Beef Scraps Lay Many More Eggs

That it is a poor policy for farmers not to feed some kind of food to their chickens which is high in protein value—such as beef scraps or sour milk—is the opinion of H. L. Kempster, associate professor of poultry husbandry at the University of Missouri.

Mr. Kempster has recently conducted an experiment which he believes proves conclusively that protein food produces greater results at lower costs.

In three separate pens the same number of chickens were kept. All were fed corn all of the time, wheat part of the time, and in addition ground grain rations of bran, middlings and corn meal. Besides this regular feed for the chickens in all three pens, those in pen one were fed beef scraps, and those in pen three were given all the sour milk they wanted. The hens were about the same age. The experiment covered the time between November 1 and June 1.

Those hens in pen two—given only the regular feed—produced only 800 eggs; those in pen one—given beef scraps—produced 1,518 eggs, and those in pen three—fed sour milk produced 1,425 eggs. The hens in pen one ate 923 pounds of grain, those in pen two 944 pounds and those in pen three 836 pounds.

The amount of beef scraps fed to the chickens in pen one was sixty pounds, costing \$7.80. These hens produced 718 more eggs than those chickens fed only the regular ration. In other words, these chickens produced 718 additional eggs on feed which cost but \$1.80 more than the regular ration. Those hens fed sour milk produced nearly as many eggs as those fed the beef scrap ration.

Poultry Notes

Good ventilation is essential for successful poultry-keeping.

Nothing but the best quality of poultry should be shipped to market.

Coal ashes make a good disinfectant to use on the drop-boards and around the hen yards.

The droppings from the poultry will be valuable as a fertilizer for the young fruit trees when properly used.

Eggs and poultry of quality are always in demand at prices above the market.

If you have windows in the hen house, keep them clean, as the hens need all the sunlight they can get.

Be sure to keep plenty of fresh water before the hens. A great amount of water is used to form the egg.

Be sure and clean out all the poultry houses before putting the young stock in winter quarters.

Feed at regular hours and the fowls will always be ready and waiting for their last meal.

Put the windows in the poultry-house low down near the floor, so that the hens will get the benefit of the light and sunshine when scratching for their feed.

The chaff that settles beside the straw stack at threshing time makes a splendid winter litter in which to feed the small grain. Have it about six inches deep all over the hen house floor.

All perches in the poultry-house should be built on a level. When built one above another, step-fashion, the hens will fight for the higher perches with the result that some of them will become injured or eggs will be broken in them.

Grit or lime is absolutely necessary for egg production. It is always well to have a large pile of sand and gravel handy, where the fowls can help themselves. Cracked

There is however, one drawback with eggs preserved in a solution of water glass, viz., that the shell easily bursts in boiling water. This may be avoided by cautiously piercing the shell with a strong needle.

The following directions for preserving by this method are given:

Use pure water that has been thoroughly boiled and then cooled. To each ten quarts of water add one quart of water glass. Pack the eggs in a jar and pour solution over them, covering well.

Keep the eggs in a cool dark place. A dry, cool cellar is a good place.

Strawberries in Maryland

Luscious strawberries have been appearing in the markets of Somerset County, Maryland, from the farm of G. A. Garwood. Altho the season ended for berries some weeks ago, Mr. Garwood's Everbearing plants have furnished fruit almost daily for sale. For this time of the year the berries are very palatable, large and firm and are bringing 15 to 20 cents a quart. Mr. Garwood has made a close study of the strawberry and its culture in many climates and believes that he can have ripe fruit until late fall. The plants have luxuriant growth and have attracted the attention of many farmers.—Marylander.

Oyster Shells and Grit for Poultry

Egg shell material must be provided in practically all sections where many fowls are kept for egg production. Grit also should be provided unless the soil contains gravel of the proper size.

Egg Production.—Egg production is a reproductive function, a matter of fecundity, i. e., the ability of a plant or animal to produce off-spring in large numbers. The number of eggs that a flock will lay at any given time is influenced by a number of different factors some of which are briefly noted here:

First: Seasonal Variation.

Eggs are produced most liberally in the spring and less liberally in the fall and winter.

Second: Age of Fowls.

Fowls too young will not lay, hence the pullets should be hatched early enough to arrive at sexual maturity before the advent of cold weather. Fowls that are too old will not lay well. Generally speaking, the best egg production is obtained during the pullet year; then as the fowls grow older there is a drop of about ten per cent in the number of eggs laid each year due to the increasing age of the fowls.

A book on "Fertilizers"

by E. B. Voorhees, revised by J. H. Voorhees, published by the MacMillan Co., New York City, lies upon my desk. This revised edition will continue to serve as a most useful reference and text book for those who are looking for timely information.

Put the old hens by themselves and feed liberally with corn to fatten them for market. Do not winter any loafers, but it may be well to keep a few for hatching purposes.

Watch Your Next Copy

of

Green's Fruit Grower

If you find a renewal blank between its pages it means that your subscription should be renewed at once. Fill in and mail the blank as soon as you find it, so that you will be sure to get every copy or the paper.



How interesting many animals become when they are tamed so that they will eat out of your hand as are the chickens in the above photograph.

oyster, clam and eggshells, and ground bone are all very good for laying hens.

It is not so hard to put fat on fowls, but to put that fat on at a profit is what is the problem. To do this we must keep in mind that the sooner we market them the greater the profit.

As soon as the culls have reached a proper size they should be fattened. Place them in a pen to themselves and feed them food that contains a large per cent of carbohydrates, such as corn, or its milling products. During the process of fattening do not give them any green food at all.

It usually takes about twenty days to properly prepare a fowl for the market.

Keeping Eggs

Of twenty methods of preserving eggs tested in Germany, the three which proved most effective were coating the eggs with vaseline, preserving them in lime water, and preserving them in water glass. The conclusion was reached that the last is preferable, because varnishing the eggs with vaseline takes considerable time and treating them with limewater is likely to give the eggs a disagreeable odor and taste.

During the winter I was commissioned by a farmer who had been a successful grower of other farm products to handle of seedling of Northern and Southern varieties of them for all men who were for Spy and This is not the best side of it. Melon, B. others of the variety and whereas the varieties are year I find get a barrel ing? Who have no Sp varieties, they they must This shows with one va This com Spies, so far New York apples are that he rece from the st other state. I assume th the Spy, pr other part of Fruit Farm orchard of S but nubbins cracked, not year these s fact specime color. I ha able experie favorable w spells in ear

The C Mr. C. A scribe of yo years or so as well as v bred man be N. J., until father thou the city and tically nothi father did n farming, ha and commut effect us mu The only t was getting as we lived I stayed b the business and by rea could get h Grower with formation on fruit growi The chang serious move perience at city man w to go in the of making m If he thin would advi can be kept tivation, pl berries every poultry and profit on the of the incom My idea o years (owing and the high keep as m down to hay ground I can help in plant ing is a busin at the head Bolton, N. J

Could not Grower. It lot of good a pleasure of —Henry W.

Read "Be the inside b

Spy Apples

During my visit to the Adirondack mountains I was favored with the company of a commission man from New York City, a man who had been engaged in selling fruits and other farm products for nearly fifty years. I learned many things from this experienced handler of fruits. He told me it was exceedingly difficult to get a high grade of Northern Spy apples, but that when they did secure fancy Spy apples they could sell them for almost any price. He told of rich men who were willing to pay \$18.00 a barrel for Spy apples that were strictly fancy. This is not owing to the fact that the Spy is the best of all apples, for I do not consider it of higher quality than McIntosh, Melon, Banana, Winesap, Staymans and others of that class, but the Spy is an old variety and is known to a hundred people, whereas the McIntosh and other similar varieties are known only to a few. Every year I find men inquiring, "Where can I get a barrel of Spy apples for my own eating?" When these people are told that we have no Spy apples but have other choice varieties, they will not accept the change. They must have the Spy or go without. This shows the advantage of acquaintance with one variety.

This commission man said that the best Spies, so far as he knew, did not come from New York state, though many fine Spy apples are grown in New York state, but that he received more first-class Spy apples from the state of Vermont than from any other state. This was surprising news, for I assume that New York state, the home of the Spy, produces as good specimens as any other part of the world. I recall at Green's Fruit Farm one season where a small young orchard of Spy apple trees produced nothing but nubbins covered with fungus and cracked, not worth picking, when the next year these same trees were filled with perfect specimens of large size and beautiful color. I have assumed that this remarkable experience was brought about by unfavorable weather, prolonged rain and cold spells in early summer.—C. A. Green.

The City Man on the Farm

Mr. C. A. Green:—I have been a subscriber of your instructive paper for twenty years or so and always found it delightful, as well as valuable reading. I am a city bred man born and brought up in Newark, N. J., until I was seventeen, when my father thought he would like to move from the city and buy a farm. We knew practically nothing about farming and as my father did not expect to earn his living at farming, having a position in New York and commuting back and forth, it did not effect us much from a business standpoint. The only thing we found inconvenient, as we lived some distance away.

I stayed home on the farm and learned the business of farming by observing others and by reading all the farm papers I could get hold of, including Green's Fruit Grower with its store-house of general information on all topics of interest, besides fruit growing and farming.

The change from city life to country is a serious move and after eighteen years' experience at farming would not advise a city man without capital and experience, to go in the country with the expectations of making money.

If he thinks of trying the experiment would advise him to get no more land than can be kept up to the highest state of cultivation, planting some fruit trees and berries every year. Try a small flock of poultry and find out if you can make a profit on them, by keeping a strict account of the income and out-go.

My idea of running a farm the last few years (owing to the scarcity of good labor and the high wages poor labor want) is, to keep as much ground as possible seeded down to hay and grain, working only what ground I can myself, with the aid of some help in planting and harvest time. Farming is a business and must have an able man at the head all the time.—Herbert L. Bolton, N. J.

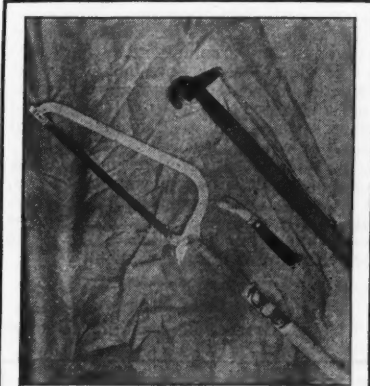
Could not do without Green's Fruit Grower. It has helped me a wonderful lot of good among my trees and also the pleasure of reading its interesting pages.—Henry W. Van Patten, Ky.

Read "Bees, Poultry and Fruit" on the inside back cover of this number.

A West Virginia Apple Orchard

I have never visited any one in which the business end of the work has been carried out as well as in the Protumna Orchards, near Martinsburg, West Virginia. These people have 300 acres or about 12,000 apple trees planted which average from four to sixteen years of age, says "Pennsylvania Farmer."

Their bearing trees are mostly York Imperials and Ben Davis and, by the way, these are the most important bearing varieties all along Apple Pie Ridge. Now, they are planting a great many trees of such varieties as Stayman Winesap, Jonathan and



Photograph of tools for pruning plants, vines and trees, consisting of a saw attached to a long handle, a pruner with hook and blade attached to a long pole, and a heavy pruning knife. The long-handled saw can be purchased for \$1.50, the long-handled pruner for \$1.00, and the heavy pruning knife for \$1.50.

Black Twig. Mr. Tabler is conducting an experiment plot in which he is trying out one hundred and fifty different varieties of apples, in order to determine what varieties are best adapted to their conditions. They inter-crop the trees with a general farm rotation until they come into bearing and as it is a limestone soil, in good condition, the inter-crops about pay for the work on the trees. They feed the trees heavily with commercial fertilizers and conserve the moisture by using a system of clean cultivation with crimson clover as a cover crop. I was surprised to find that clean cultivation and cover cropping is practiced entirely



Here is a photograph of long-handled pruning shears which cost \$1.75, also small hand pruning shears which cost \$1.15, also pruning saw which cost \$1.25.

throughout this section and in no place did I see any trees grown with a sod mulch. Mr. Tabler called my attention to their moisture regulator, which is seldom seen in an orchard. This instrument registers the amount of rainfall for each month in the year and in that way helps them to determine the amount of cultivation that is necessary. They also have a recording thermometer which registers the temperature for each hour of every day in the entire year and gives them information which comes in very handy at many times.

Their spraying equipment is very complete and I think it represents the identical system for large orchards. They have four, one hundred gallon compressed air machines and are able to apply as much as 10,000 gallons of spray material per day. Their tanks are made of one-quarter inch steel, one end being concave and the other convex. A spiral agitator is placed in the spray tank and by means of a chain and cog wheels the material is agitated by traction power. This plan gives splendid agitation and is a very good scheme. They use a pressure of from 225 to 250 pounds and because of the heavy steel used, there is no danger whatever. The air compressor is in the spray house, and the material and the air are put into the two tanks at the same time; from seven to nine minutes are required to refill the machine.

After the apples are picked they are then taken to their large packing house. Here again, we find the same business-like methods have been employed. This building is fifty feet by one hundred and fifty feet and is constructed of concrete and sheet iron. They have their own siding running up to the one side of the house, so that the apples are brought in at one side, packed, and put into the cars at the other side of the building. At the one end is located their cooper

shop, and by means of an incline the barrels are rolled directly into the packing house, where they are either stored for future use or filled with apples at once. They cooper all of their own barrels at a considerable saving and as the packing house will hold fifteen thousand empty barrels, they can have a great many of them on hand for the packing season.

These people are using every means to grow the finest apples that can possibly be produced and are working toward a strictly first-class trade. They are packing in both barrels and boxes and where a man buys a certain quantity of apples, his name is printed on the paper cap in the barrels, thereby helping him to advertise the fruit

Death of Prof. Lazenby

As we go to press we learn of the sudden death of Prof. Lazenby of pneumonia. Prof. Lazenby's early work was done in New York state. He was a graduate of Cornell University and was for many years a teacher of horticulture here. He was often heard upon the platform of the Western New York Horticultural Society. He was a genial man, friendly, and his friendship was highly prized by all who knew him. Of late years he was Professor of Forestry of the Ohio State University.

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Letters From The People

"Prudent questioning is the half of knowledge."—Proverb

The Cotter's Saturday Night

"November chill blows loud in angry sigh;
The short'ning winter-day is near a close;
The miry beasts retreating frae the pleugh;
The black'ning trains o' craws to their repose.
The toil-worn Cotter frae his labor goes.
This week his weekly moil is at an end,
Collects his spades, his mattocks and his hoes,
Hoping the morn in ease and rest to spend,
And weary o'er the muir, his course does hameward bend.
At length his lonely cot appears in view,
Beneath the shelter of an aged tree;
The expectant wee things, toddlin', stacher through
To meet their Dad, wi' flichterin' noise an' glee,
His wee bit ingle, blinkin' bonillie
His clean hearth-stone, his thrifty wife's smile,
The lisping infant prattling on his knee
Does a' his weary, carking cares beguile,
An' makes him quite forget his labor an' his toil."

Robert Burns.

Starting a Farm Home

Mr. C. A. Green: Although I am a minister I read with much interest Green's Fruit Grower. It is my recreation. My plan is to get a small farm of say twenty to thirty acres near a good local market and prepare to end my days there. I am now fifty-seven and count on about ten years or less in the ministry. I was brought up on a farm and never have been weaned from it. My plan now, as I see it, is to rely mainly on chickens, say about 1,000 and with them I want fruit.

Would pears pay pretty well in the fruit line? If so, what varieties are best to grow for market? What about Bartlett and Clapp's Favorite?

I was much interested in an article in August Fruit Grower by C. L. Burkholder on "Currants are Profitable." I was surprised to find there the statement that his bushes produced as much as \$970 per acre in one year. Is that so? I was also surprised to read in the article "How to Grow Blackberries" that an acre nets only \$100. I would like you to mail me or refer me to any special leaflet or book on growing currants or other small fruit.

Are Columbians the best raspberry to grow for market? If so, how much would they produce in money on an acre? I may plant a few Columbians this fall, if you think fall is the best time to set them.

Would you advise me to grow currants or other small fruit in rows between rows of pear trees?

Please patiently answer. Paul, N. Y.

Reply:—Since you were brought up on a farm you are far more likely to succeed in farming and fruit growing than if you had been brought up here in the city, and yet you doubtless have much to learn before you can succeed notably in fruit growing or in poultry keeping, success in which depends altogether on management. Some people make money in poultry keeping and fruit growing and other lose money. I should consider poultry keeping quite as risky as fruit growing, but either is as safe as farming.

Pears do not sell quite so readily as strawberries, peaches or apples, but a moderate planting of pear trees is desirable. In fact, I advise planting various kinds of fruits so as to have something for sale at all seasons. Currants are not so profitable at present as they have been in the past, at least in cities. In the country and villages currants are used about as formerly.

You must not pay too much attention to reports of large yields of any crop. Large yields are possible but average yields only should be expected, at least until you get large experience. Blackberries are equally as profitable as any other small fruit but are rather more difficult of production. I send you my book hoping you may get some information there. There is no more profitable raspberry than the Columbian, a purple raspberry and marvelous yielder. Its fruit is particularly desirable for canning, for jams, etc., as well as for eating fresh at the table.

Planting a Tree

Green's Fruit Grower: I notice in your paper the following:

"If you are planting a tree or a shrub in a grass plot, see that the sod is removed for a space of two feet wide. Then excavate the hole to the depth of 12-15 inches without disturbing the sub-soil, place the tree in position and cover the roots with the loose soil taken from the hole."

The point I wish to bring up is this: do you recommend putting the roots of the new tree or shrub down on the hard sub-soil and then cover the same? I have purchased some trees and shrubs this spring but I did not follow the above directions. I supposed if the tree or shrub was to be placed in the earth as deep or deeper than the sub-soil, a portion of the latter should be taken out and the hole filled with good earth as high as the roots of the tree or shrub were to reach.

Till lately I have lived in Illinois where the soil was good for from 12 to 36 inches in depth, but now I am living near Cleveland where the soil is clay with a hard sub-soil about 10-12 inches below the top and I am developing a new home. This being true

it is a small farm nearly all occupied by fruit trees. Those who ask questions should take pains to make everything plain, otherwise it is difficult to advise.

The Melon Apple

Mr. Charles A. Green: In a late number of the Fruit Grower I notice your editorial comment on the interesting notice on the melon apple. For years I have seen this apple listed, but never before knew of its identity with Norton's melon. Under the latter name I knew the variety when a little boy in my grandfather's orchard here in the state, and I have most pleasant memories of it. My grandfather came from Rochester, N. Y., to Michigan, and either brought the stock for his orchard with him, or sent for it later.

As I remember the Norton's melon apple, it was as you describe it on your Fruit Farm. It is really a very handsome apple. Accordingly, your note concerning the fruit as you are most familiar with it was a joy to me.—Edward M. Brigham, Mich.

Isle of Pines

Chas. A. Green: For some time Roches-



Home building of a reader of Green's Fruit Grower on a fruit farm near Rochester, N. Y. Such as are mainly owned by fruit growers. This little farm was sold at auction for \$25,000 on account of the valuable orchard attached.

I want to know just how my trees and shrubs should be placed in the earth.—William B. Shaw, Ohio.

Reply:—Yes, the roots of the trees can be placed on the sub-soil and covered with good fertile surface soil. It might be better if the sub-soil were broken up a little, but this is seldom done. It is not often that the tree is planted deep enough to reach the sub-soil, but the sub-soil can be found at varying depths in different parts of the country or in different parts of the same farm. Sub-soil is of variable character all over the world. Some sub-soil contains much fertility. Some is hard, called hard pan, others clayey, others sandy, etc. Directions that will apply to one soil or one sub-soil may not apply to another.

Buying a Fruit Farm

A subscriber in Brooklyn, N. Y., has an opportunity to buy a fruit farm, containing 3,500 fruit trees of all kinds, located in New Jersey near the Lehigh Valley railroad. \$1,500 a year has been made in clear profit from the orchard. He asks if a man could live on such a farm, probably meaning to ask could he make a living on such a farm.

C. A. Green's Reply: The above letter is too brief to be easily understood and answered. A fruit farm might have 3,500 trees upon it and all of them worthless, not being of desirable varieties, or having been neglected, or being too old, or not being old enough to bear fruit. If there were 3,500 trees in bearing of desirable varieties of fruit that was marketable or in demand in the market, the right man should find no difficulty in getting revenue enough from such a farm to support himself and family. The writer does not tell how many acres the farm contains, the assumption being that

ter parties have been holding out great inducements to get parties to invest in land in The Isle of Pines. Fearing it is as much of a fake as the Florida boom, I ask your opinion.

Would it be safe for a New York State family to go there and locate?—A. O. Palmer, N. Y.

Reply:—I have no personal experience or knowledge of the Isle of Pines. I have heard it mentioned as having a delightful climate and being a fruitful place, particularly for tropical fruits. But no one should buy land there or interest in a land company without thorough investigation. If you are thinking of locating there you should visit the place before investing your money. There is undoubtedly waste land in the Isle of Pines, the same as there is almost everywhere.

A man who used to work for me is now located in the Isle of Pines. I understand that he is succeeding and is pleased with his surroundings. No one should expect in moving to find the new place like the old home as regards neighbors or the inhabitants generally, and many other features.

The silo enables the farmer to store a greater amount of feed in less space than he can otherwise do. It requires double the amount of space to store the same amount of nutrients and roughage.

Apples in Vermont

Green's Fruit Grower: A subscriber asks if Banana is hardy in Vermont. I have a fine tree of that variety, set eight years ago this spring, that bore two bushels of fine apples last fall. Spy, Wagener, Wealthy, R. I. Greening, Yellow Transparent and McIntosh Red have done well here. Pound Sweet, Green's Baldwin and

Wisner's Dessert have made good growth but have not borne much yet. Transcendent Crab is splendid, an enormous cropper, and the stewed or canned apples are as fine as cranberries, only not as sour.

I bought a Wolf River apple tree that had a nodule as large as a hickory nut on the root. Now the tree has a black spot on each side of the tree. Is there any relation between the nodule and canker? Could I graft the trunk below the spot and get rid of the trouble? Are scions from this tree more apt to be infected with canker.

I have received much help from Green's Fruit Grower in caring for my home orchard, plants, vines, etc. I am a novice at fruit growing and should be at sea without your paper. Wayne Harwood, Vermont.

Reply:—I am glad to get your report of the hardness of Banana apple in your state. Wolf River is a hardy variety. No, I do not think the nodule or wart on the root of the Wolf River apple tree was the cause of its being attacked by canker. I would not attempt to graft the infected Wolf River apple tree. The scions from this tree might be infected, therefore I would not use them.

Red Apples

A subscriber in Missouri sends Green's Fruit Grower a box of beautiful red apples. So far he has tried in vain to find some one who can name the variety.

Reply: The beautiful apples you send are an enigma. They look something like the Wealthy and something like the McIntosh and something like the Gravenstein. The fact is that apples differ so in different parts of the country in date of ripening, color, flavor and size, it is difficult to name them positively. My superintendent, who has much experience with McIntosh, says they are McIntosh Red, which is one of the finest of late fall or early winter apples. With us it keeps until February. I thank you for calling our attention to this beautiful fruit.

Black Walnuts as Food

King Canyon Fruit Farm, Michigan, would like to have C. A. Green tell in the Fruit Grower the value of black walnuts as food. They have about 200 trees 15 feet in height and growing fast.

Reply: While I cannot state definitely the comparative quantity of fats in black walnuts as compared with other nuts, my opinion is, that black walnuts contain fully as much nutriment, consisting mostly of oils, as any other nut. Butternuts are also remarkably nourishing on account of the large supply of oil which they contain. The name further indicates that they are buttery or oily. While pecans and English walnuts are remarkably wholesome and nutritious, I have not regarded them so notably nutritious as the black walnut, the butternut and the hickory nut, but bear in mind that all of these nuts vary individually in oily or nutritious characteristics. I lament the fact that the big black walnut and butternut trees that used to be so frequently seen on every farm in western New York have disappeared with none to take their places, and the hickory trees with which every woodland was well supplied and which yielded nuts in vast quantities for the boys and girls and the squirrels to gather, can no longer be found in abundance, though here and there you may see a hickory tree of moderate size, the larger hickories having been cut down for spokes of wagons, golf sticks and other similar purposes.

Moving Old Peach Trees

Mr. Chas. A. Green: I have some peach trees, some on a hill, some on low land, set in 1913 and 1915. Those on low land winter-kill all the new growth, while those on the hill, while they do not make half the growth, do not winter-kill. I want to transplant those on the low land on to the hill. I am told I can dig them up this fall, keep them down cellar and plant in the spring.

Would it be any better to transplant on hill this fall? Will the rats gnaw the bark off the trees down cellar? How would it do to wind the trunks with tar paper?—Walter H. Emery, N. H.

Reply: No, it will not pay you to dig up the peach trees which are now of bearing

size and... It would... chase new... of all tree... am confid... they wou... Green's F... of this fa... sides or b... while the... valley wil... ductive.

Fall Editor September of fruit tr... you consi... peach and... and if so,... suggest p... acres to b... and apple... vestment... fall. Any... greatly ap... Consider... do you co... setting tr... added exp... J. Wood, Conn.

Reply:—and have... the therm... should ra... planting t... not favor... fall, thoug... dozen or s... tree before... At Gree... mited hol... have plant... been able... claims tha... duced with

Green's proper tin... or fall? and the kin... J. M. Bur

Reply:—plants ma... spring, I w... reason tha... plants thro... spring, som... planted. A... saved by p... plants in... not require... ceed well v... rant is som... requiring l... Where the... where ther... some of th... which will... berry or ra... bearing wo... wood parti... this is not... remove all... in any even

The Lat Letter

Green's to inquire a... about two... County, O... drained, bu... of the year... ered with... What are t... in growing... best varieti

Reply:—been a wel... Atlantic coa... of the north... coast. I ha... berry bogs... Virginia, so... in northern... places that... requirements... culture besi... A black, r... posed of dec... tials, with a... it within su... muck alway

size and transplant them on higher ground. It would be far better economy to purchase new trees. Peach trees are the worst of all trees for transplanting when large. I am confident that if dug and transplanted they would result in failure. Readers of Green's Fruit Grower should make a note of this fact that peach trees planted on hill sides or hill tops will thrive and bear fruit, while those but a few rods away in the valley will not thrive so well or be so productive.

Fall Planting of Fruit Trees

Editor Green's Fruit Grower: In the September issue of your paper, fall planting of fruit trees is strongly recommended. Do you consider the same advisable for the peach and apple growers of Connecticut, and if so, at what time in the fall would you suggest planting? I have a number of acres to be set out next spring to peaches and apples, and if it is a safe business investment would like to do some of it this fall. Any advice you can give will be greatly appreciated.

Considering the high cost of dynamite, do you consider the benefits derived from setting trees by this method worth the added expense over the old method?—H. J. Wood, Supt. the Conn. Orchards Co. Conn.

Reply:—I practice fall planting myself and have met with good success, but where the thermometer goes far below zero I should rather wait till spring except in planting the very hardiest apple trees. I do not favor planting peach orchards in the fall, though I would not hesitate to plant a dozen or so in the garden, banking up each tree before winter came on.

At Green's Fruit Farm we have dynamited holes in planting apple trees and have planted the trees but have as yet not been able to test dynamiting. No one claims that good orchards cannot be produced without dynamiting.

Growing Gooseberries

Green's Fruit Grower: When is the proper time to set gooseberries, spring or fall? How should they be pruned, and the kind of manure to put around them? J. M. Burkner, W. Va.

Reply:—While gooseberry and currant plants may be planted either in fall or spring, I would prefer fall planting for the reason that both gooseberry and currant plants throw out leaves very early in the spring, sometimes earlier than they can be planted. Almost a year's time can be saved by planting currant and gooseberry plants in the fall. The gooseberry does not require much pruning. They will succeed well without any pruning. The currant is somewhat similar in this respect, requiring little use of the pruning-knife. Where there is too much wood on the plants, where there are too many bearing canes, some of these canes should be removed, which will result in larger fruit. Old gooseberry or raspberry bushes with much old bearing wood on them should have this old wood partially removed each season, but this is not absolutely necessary. Do not remove all the wood of last season's growth in any event.

The Late Professor Van Deman's Letter on Cranberry Culture

Green's Fruit Grower: I would like to inquire about cranberry culture. I have about two acres of land, located in Lucas County, Ohio, which has been partially drained, but is very wet at certain seasons of the year. The soil is a black sand covered with three or four inches of muck. What are the cultural methods employed in growing cranberries? What are the best varieties? John L. Carpenter, Ohio.

Reply:—Cranberry culture has long been a well established business on the Atlantic coast and for a less time in some of the north central states and on the Pacific coast. I have also seen cultivated cranberry bogs in the mountainous parts of Virginia, so it is quite likely that the locality in northern Ohio asked about may have places that are suitable. There are several requirements for the success of cranberry culture besides mere swamp land.

A black, mucky bog that is mostly composed of decayed humus is one of the essentials, with a constant layer of water beneath it within such a distance as will keep the muck always moist. The water supply

should be such that the entire bog may be flooded at will, by means of a stream that can be dammed and the water raised in case of frost or to drown out certain insect enemies that are often troublesome. Before planting there should be a layer of sand and fine gravel laid over the muck several inches deep, which is a costly job.

It is probable that this land is better suited to the culture of the swamp blueberry than the cranberry, and as this industry is being started under the direction of Mr. F. V. Coville, botanist of the Department of Agriculture at Washington, I would suggest that the inquirer write to him for information on this subject.—H. E. Van Deman.

The above letter written two years ago shows to what length he would go to do any man a favor.—C. A. Green.

He Wants a Farm

Editor of Green's Fruit Grower: I am an interested reader of your paper the Green's Fruit Grower. I have taken it for a year and am going to continue taking it. We live in a village but want to go on a farm. What kind of a farm would be best to work—a dairy farm or a small fruit farm?—John Horr, N. Y.

Reply:—All kinds of farming and all kinds of business can be made profitable in the hands of the right kind of a man who has love and enthusiasm for his work. Therefore I advise you to take up that kind of farming which is most congenial to you. If you like cows best take up dairy farming. If you like poultry best take up poultry keeping. If you like fruit growing best take up fruit growing. I favor fruit growing and claim that fruit growing is the most profitable manner in which the soil can be occupied, but if you do not love fruits you better turn your attention to something else. Dansville, N. Y., is a beautiful place and the soil is fertile.

When to Prune Grape Vines

Green's Fruit Grower: Kindly let me know the best time to prune grape vines in this state. We have two vines, Catawba and Concord which bore pretty well last year but this year did not have any fruit. They were pruned in February, which we understand now is the wrong time.—Mrs. Jane Baker, Mass.

Reply:—February or any season when the grape vine is dormant, when the leaves have fallen, is a suitable time for pruning grape vines. If I had my choice of the date I would choose February or March for New York state. The fruitfulness of grape vines depends much upon the method of pruning, more than upon the date of pruning, and yet grape vines should not be pruned when in full leaf or when growing. Strong growing grape vines like the Concord or Niagara should have more canes left on to cover a larger trellis than slow growing varieties like the Delaware, which should be pruned more closely so as to urge a more vigorous growth in the slow growing variety. I suspect that it is possible for the soil to be too rich for the grape vine. Where the soil is very rich the vine makes extraordinary growth, which does not tend to fruitfulness.

Uneven Ripening of Grapes

Mr. C. A. Green: I would appreciate very much if you could tell me how I could get my Concord grapes to ripen evenly. Some bunches run 25% green and the balance blue ripe all right. Of course the green ones could be used as a by-product for jelly but it spoils the appearance of a fine cluster to reduce it too much. Could you offer a suggestion?—C. H. Schenck, Tenn.

Reply:—There are a few varieties of grapes which have the habit of ripening unevenly. This is a serious defect. Brighton grape is one of my favorites, but it has this defect to a moderate extent of not ripening all of its fruit at the same time. I have never seen a Concord grape vine that acts as yours does, therefore I almost suspect that you have not the true Concord. I know of no remedy. During some seasons grapes having a tendency to ripen irregularly do so less seriously than during other seasons, but why this is so I cannot state.

Want a Farm?

A subscriber's family consists of husband, wife, two girls and two boys. The family has a capital of about \$500 and have a longing for rural life. I find many people with not enough money, as they think, to get a start on a little piece of land in the open country.

There are many things to be considered by such a family, which I, not knowing all the circumstances, cannot take into account. I will simply suggest the difference between money invested in the city and money invested on a farm. A friend has just spent \$7,000 for a house and lot in the city of Rochester, N. Y., which will make a delightful home but which will bring in no revenue, but will serve only as a shelter and a place of residence.

I recently purchased a farm of 100 acres for about \$7,000. This farm has on it a good house, much larger than the city house but older, and several out buildings, one of them being a barn, comparatively new, of very large size. This investment of the same sum of money paid for the farm that my friend paid for a city home will not only furnish a shelter and a home, but a living for a small or large family, for if the family is large, it is assumed that they will all be helpful with their hands or heads in doing the work of the farm.

Here is evidence that the farm is the place for poor people rather than the city, unless the man or the wife or both are skilled in some particular city work which will yield them a salary equal or exceeding that which could be derived from the farm.

Have I made myself clear, when I have said that the city man gets only a place to live in, an abode, for his \$7,000, while the man who buys the farm gets in addition to the house and barns, an orchard and broad fields from which he should be able to earn a good living.

Another item, which may escape many people, is that people who live on farms are not continually called upon almost every hour of the day, to pay out money here and there for street car fare, or the numerous other petitions which come to every man, woman and child who lives in the city, thus life on the farm is more economical. You do not have to wear expensive clothing on the farm. When I left the city many years ago for the farm, I was astonished to find the same amount of money in my pocket on Saturday night that I had on Monday morning, whereas if I had lived in the city I would continually have been called upon for payments of money, which would have exceeded the supply in my pocket.

Considering all the favorable features of rural life, I have often been astonished that so many people drift to the cities, which means drifting to an expensive life, while so few who live on farms appreciate the advantages they enjoy in their secluded retreats and the opportunities they have on the farm for saving money and for earning money which they would not have in the city.

But I must leave the question unanswered which is so often asked, and which is in the main, "How can a family with \$500, or a little more or less, now living in the city, get a start in the country?" This is some-

thing that each individual must decide for himself. This is a problem of great importance. I hesitate to recommend changes of any kind. Where members of the family are earning good wages in the city, I would not advise them to leave the city for the farm, which, if they are unaccustomed to farm life, they might find distasteful in many respects. It is not comfortable to live in the country without a horse or some means of conveyance, nor without a cow or poultry. All these things must be taken into consideration, remembering that it requires capital to get a start on a large or small farm in the country.—C. A. Green.

Indian Summer

Written for Green's Fruit Grower by L. Myrtle Sours

In the Indian summer days
There comes a wonderful, purple haze,
The sun looks out like a ball of red
And yet the clouds from the sky have fled.

That strange, uncertain, smoky hue,—
Is it purple, or is it blue?
Covers the sky from morn till night,
Dimming the face of the sun so bright.
Most of the leaves have fallen down,
And the golden-rod has faded brown;
The corn shocks wilt in the stubbled fields
And the last of its fruit the late tree yields;

The birds go to seek a warmer clime,
A place of a longer summer time.
Ah, these are the golden autumn days
With their wonderful Indian summer haze!

LADDERS
REAL ONES
So light a woman can handle,
so strong they cannot break.
Single, Extension, Step and
Fruit. Write for catalog and
get them at Winter Discounts.
The Berlin Fruit Box Co.
BERLIN HEIGHTS, OHIO

The Sure Way To Save Trees
Before winter sets in, put an
EXCELSIOR WIRE MESH TREE GUARD
around each orchard tree. They cost little. Can be set up in a moment. Prevent all gnawing by mice, rabbits or woodchucks. Have saved many an orchard. In the spring, remove and use next season. Heavily galvanized to last for years. Sizes to fit all trees.
Write for prices.
WRIGHT WIRE CO.
Dept. P. Worcester, Mass.

EXCELSIOR RUST PROOF

SPECIAL SALE FOR 30 DAYS ONLY

No. 18 Barrel Sprayer and one gal. Scalecide for \$10.00. No orders accepted after December 10th, 1916, at this price.

Green's Cog Gear Barrel Spray Pump No. 18, for Small Orchard

Best Pump on Earth for the Money

It has bronze ball valves and brass seats; the plunger is brass, fitted with hemp packing. Will handle hot, cold or any caustic mixture. The cylinder and discharge pipe are all brass. The air chamber is 32 inches in length, enabling the pump to throw a uniform, constant and elastic spray. It has good leverage, is very powerful and easily operated. The Mechanical Agitator stirs the solution from the bottom, making it impossible for this pump to clog under any circumstances.

The new base is made so that the pump can be used on any barrel, regardless of height.

Price, as illustrated, including Mechanical Agitator, 15-ft. Hose, Nozzle and 1 Gal. Scalecide, \$10.00.

SCALECIDE—A guaranteed remedy for San Jose scale, Apple Leaf roller, Pearls; is a petroleum oil that mixes at once with cold water and stays mixed. Add one gallon Scalecide to each fifteen or twenty gallons of water. Spray this fall or soon as the leaves have fallen.

Price after December 10th, 1916, \$11.50.

GREEN'S NURSERY CO., Service Dept. Rochester, N. Y.



15 **95 AMERICAN CREAM SEPARATOR**
Sent on Trial. Fully Guaranteed. Easy running, easily cleaned. Skims warm or cold milk. Bowl a sanitary marvel. Whether dairy or large or small obtain handsome catalog. Add: Box 5121, Bainbridge, N.Y.

You Need This Book

I want it in every farm and city home reached by this paper. It will save you from \$200 to \$500 on farm and household needs in the next twelve months because

IT SETS YOU RIGHT ON PRICES
Ask for your copy today. A postal gets you the book. The big 200-page book of Galloway's bargains was exhausted. Second edition just off the press! In addition I will send you my 96-page full book, chock full of standard quality merchandise—success for farm and city homes tells ALL ABOUT GALLOWAY 1917 MANURE SPREADERS. Gives all improvements; all Galloway spreaders patented. Tells about my 90-day actual field trial offer, describes and illustrates the Galloway spreader. Shows you how we build this spreader in the Galloway factories right here in Waterloo, Iowa. Tells why we can sell these low 1917 prices. If you need a spreader of any size or style first get this book!

GALLOWAY GASOLINE ENGINES
This book will tell you why you should insist on a HEAVY WEIGHT, LARGE HORSE, LOW SPEED and LOW RPM engine instead of the short stroke, small bore, high speed, light weight engines made, built and sold at lower prices. Galloway engines are built to stand up under the hardest test—to give a LIFETIME of SERVICE at hard, tough jobs—out satisfaction and pleasure every year.

SANITARY CREAM SEPARATORS
This book is chock full of cream separator facts. It tells you why I can sell you the best separator ever built for less money than any other cream separator manufacturer or distributor. It tells you how we build quality into our separator, out of which you get the service. It tells all about our five selling plans and our 90-day trial on your farm. Every sale backed by \$50.00 guarantee bond, in addition to the reputation of the Galloway Institution. You can't afford to buy a separator of any make before getting this book.

Wm. Galloway, Pres., Wm. Galloway Co., 647 Galloway St., Waterloo, Iowa D-38

Only \$2 Down
One Year to Pay!
\$24 Buys the New Butter-Fly Jr. No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime. Skims 35 quarts per hour. Made also in four larger sizes up to 5-1-2 shown here.

30 Days' Free Trial Earns its own cost and more by what it saves in cream. Postal brings Free catalog, folder and "direct-from-factory" offer. Buy from the manufacturer and save money.
ALBAUGH-DOVER CO. (INC.)
109 Marshall Blvd. CHICAGO No. 65

Agents \$60 a Week

A Wonderful Seller
300 Candle Power Outdoor Lamp and Safety Lantern

Burns coal-oil (kerosene). Can't explode, can't set fire to anything. Burns in all kinds of weather. Rain-proof, wind-proof, bug-proof. For farmers, teamsters, hucksters, plumbers, dairymen, campers—everybody needs it.

Big Money Maker
Low price puts it in reach of every home and makes sales easy. Shuts working spare time made \$10 and \$12 a night. Jennings sold 6 this evening. Send for sworn proof. Write quick for territory and demonstrating sample.

Thomas Mfg. Co., 6970 East St., Dayton, Ohio

TRAPPERS WE BUY FOR CASH

And pay highest prices for Coon, Mink, Skunk, Possum, Muskrat, and all other Furs, Hides and Ginseng. Best facilities in America. Send for Free Price List and Shipping Tags. No commission charged.
ROGERS FUR COMPANY,
Dept. 74 St. Louis, Mo.

ARMY AUCTION BARGAINS
Saddles, \$2.00 up. New uniforms, \$1.50 up. Army T shot carbine \$3.50; edges. 1 1/2 each. U. S. Winchester high power rifle \$6.00; \$9.50. Team harness \$11.50 up. C.W. Army Revolvers, \$1.00. Remington Army Revolver, \$4.95; edges. 1 each. Mueser High Power rifle with 200 edges. \$10.95. 15 Acres Government American Goodie Bargains Illustrated and described in 425 large page wholesale and retail cyclopedic catalogue, mailed 25c east and 30c west of Mississippi River.
FRANCIS BANNERMAN, 501 BROADWAY, NEW YORK

"Gent's Made-to-Fit Tailored Clothing"
To your individual measure and style \$15.00 to \$30.00 Guaranteed. Soliciting or Merchant representatives wanted all or part time or take your own measurements. Purchase secure Agencies. Write for chart and details.
O. J. FOWLER & CO., Yonkers, N. Y.

ELECTRIC HOME AND FARM LIGHTING PLANTS
Storage Batteries, Dynamos, Engines, Economical, Clean, Power Motors, Belts, Xmas Lights, Railways, Catalog 3c. Ohio Electric Works, Cleveland, O.

The Story of an Apple
A farmer picked this apple in his orchard in the west And put it in a barrel with some others of his best; Because they were so splendid, he declared the price must climb, And so he raised his figure on that barrel by a dime.

The man who bought that barrel stuck a label on the top, Then told the interviewers of a shortage in the crop; And when he came to sell it to a buyer on the floor, He added on his profit and a half a dollar more.

The man who shipped that barrel stuck his label on it, too, And talked of early freezes and the damage that they do; The man to whom he shipped it said the grower's price was high And raised the price two dollars more than in the days gone by.

The man who stored that barrel told of shortage in the pick, Of scale and other pests that make the apple orchards sick. And he put on five dollars to the cumulative price, And so it went, each handler taking out his little slice.

So when you eat this apple, may it fill you with delight To know that some one profits on each nibble and each bite. And, O, be glad you do not live so very far away From where the apple started, for think what you'd have to pay.

DAIRY NOTES
Be regular in time of milking.

Milk is the best balanced human food available. Have the cows freshest when dairy products sell highest.

Cows understand and appreciate a few gentle pats and kindly words at milking time.

It never pays to kill the heifer calves from the best cows. Raise them to replace the poor cows.

Clean milk can be had only by clean methods in milking. This requires milking with dry, clean hands.

Where cement floors are used in dairy barns they should be more or less rough to prevent the cows slipping.

As the solids in milk are highly nutritious and easily digested, milk is a cheap food at ordinary retail prices.

Storing Cabbage
By D. H. Morris

Dig a trench a foot or eighteen inches in depth, and about ten or twelve in width, or a little wider than the cabbage head. Line the trench bottom and sides with dry straw, wheat straw preferred. Pull up the cabbage, leaving the roots intact and trim off the loose leaves. Begin at one end of the trench and place the heads in singly. Put a little straw between the heads until the trench is filled the entire length. Then cover with straw to a depth of about four or five inches and cover with dirt to about the same thickness. Be sure to leave the roots exposed above the top of the ground since the stalk serves as a sort of ventilator to carry off the steam and moisture from the cabbage. If any is wanted for use in the winter, place boards edgewise along the pit to keep the snow off so it can be gotten at more easily.

In taking the cabbage out begin at one end removing one head at a time, the straw between the head taken out, and the next one forming a partition for the dirt that should be again put back in the vacancy caused by the removal of the required heads. The trench should be dug if possible on sandy soil to insure as good drainage as possible. I have practiced this method for a number of years, both in New York State and Michigan, and have always had good success, often keeping the cabbage in first class condition until the latter part of April.

Money Saving Special Clubs

Order your magazines from this list and save from a fourth to one-half of the regular price.

	Regular Price	Our Price
Kimballs Dairy Farmer 1 yr.	\$.50	
Poultry Success 1 yr. ....	.50	\$1.00
Green's Fruit Grower 3 yrs.	1.00	
Regular Price.....	\$2.00	
Boy's Magazine 1 yr.	\$1.00	
Peoples Home Journal 1 yr. ....	.50	\$1.00
Green's Fruit Grower 1 yr. ....	.50	
Regular Price.....	\$2.00	
McCall's Magazine M. 1 yr.	\$.50	
Modern Priscilla M. 1 yr.	1.00	\$1.00
Green's Fruit Grower M. 1 yr. ....	.50	
Regular Price.....	\$2.00	
Boy's Magazine M. 1 yr.	\$1.00	
Woman's World M. 1 yr. ....	.35	\$1.20
Prairie Farmer M. 1 yr. ....	.50	
Green's Fruit Grower M. 1 yr. ....	.50	
Regular Price.....	\$2.35	
McCall's Magazine M. 1 yr.	\$.50	
(with pattern)		\$1.00
Poultry Success M. 1 yr. ....	.50	
Green's Fruit Grower M. 1 yr. ....	.50	
Regular Price.....	\$1.50	
Green's Fruit Grower M. 3 yrs.	\$1.00	
Farm and Home Semi-M. 1 yr. ....	.50	\$1.00
Regular Price.....	\$1.50	

Green's Fruit Grower 1 year with—

	Regular Price	Our Price
American Agriculturist W. 1 yr.	\$1.50	\$1.25
American Bee Journal M. 1 yr.	1.50	1.00
American Boy M. 1 yr.	2.00	1.50
American Nut Journal M. 1 yr.	1.75	1.50
Breeders Gazette W. 1 yr.	1.50	1.25
Farm Journal M. 5 yrs.	1.50	1.15
Hoards Dairyman W. 1 yr.	1.50	1.15
Housewife M. 1 yr.	1.00	.75
Ladies World M. 1 yr.	1.50	1.10
Little Folks M. 1 yr.	1.50	1.15
McCall's Magazine M. 1 yr.	1.00	.75
Michigan Farmer M. 1 yr.	1.25	.75
Mother's Magazine M. 1 yr.	2.00	1.25
Motor Mechanics M. 1 yr.	1.50	1.00
National Stockman & Farmer W. 1 yr.	1.50	1.25
Reliable Poultry Journal M. 1 yr.	1.00	.75
Rural New Yorker W. 1 yr.	1.50	1.35
Woman's Home Companion M. 1 yr.	2.00	1.60
Youth's Companion W. 1 yr.	2.50	2.50

Green's Fruit Grower 3 YEARS with—

American Farming M. 3 yrs.	1.50	1.00
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Successful Farming M. 1 yr.	1.25	1.00

If you do not find just the ones you want listed here, send us your list, and we will quote you a money saving price.

Send all orders to

Green's Fruit Grower Company
Rochester, N. Y.

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MARKETING APPLES

Authority Tells How he has Established a Good Trade

Ninety-five per cent of the apple crop is marketed in the Middle West in barrels, says "Farm Life." I have found it profitable to market the fancy grade of my Winesaps and Jonathans in bushel boxes. In that way I compete with the Western apple growers, having from 40 to 45 cents advantage in my favor of freight charges. Only the fancy grade of the high quality apples should be marketed in boxes. The standard bushel apple box costs about 14 cents compared with the barrel at 35 cents.

The merchant and manufacturer advertise their product. Why shouldn't the farmer use some method of advertising, attracting the buyer to his product? Last year I enclosed two small display cards in each box of Winesaps. These cards are 6

Preparing Apples for Cold Storage

It will bear reiterating that apples for cold storage should be picked when fully grown, but while still firm and yet well colored. They should be placed in cold storage promptly and all unnecessary delay in grading and packing should be avoided. Storing direct from the orchards without grading, and grading at leisure is good practice. For long period storage only the best fruit should be selected and it should be free from disease or blemish of any sort. If the fruit is immature or of poor quality, it will naturally wilt and decay more readily. If over-ripe it will dry out and evaporate and become what is known as "mealy." Over-grown fruit is not desirable for storage as it lacks firmness. Medium size well-colored fruit is the best.—"Cold Magazine."

the evaporators, cider mills and in bulk. It looks as if more apples would go in bulk this season than last year. Some of the dealers here who make a specialty of handling apples in bulk say they are going to buy only a few grade "A" apples and the rest they are going to ship in bulk.

Receipts of early apples in the Rochester market the past week have been liberal and prices reasonable. Sales have been made at 50¢/75¢ per bushel. The demand has been fairly active.

Note by C. A. Green. Some hold that our best apples should bring \$3 per barrel.

"Is the word 'politics' singular or plural?" "Plural," replied Senator Sorgham. "I know a man who is trying to be a republican, a progressive, and a prohibitionist all at once."—Washington "Star."

Wanted: Honest, Energetic Men

in every county to sell our big line of goods direct to farmers. Experience not necessary. We fully instruct you. Farmers, laborers, mechanics, or any men willing to work can make

\$1000 to \$3000 a Year

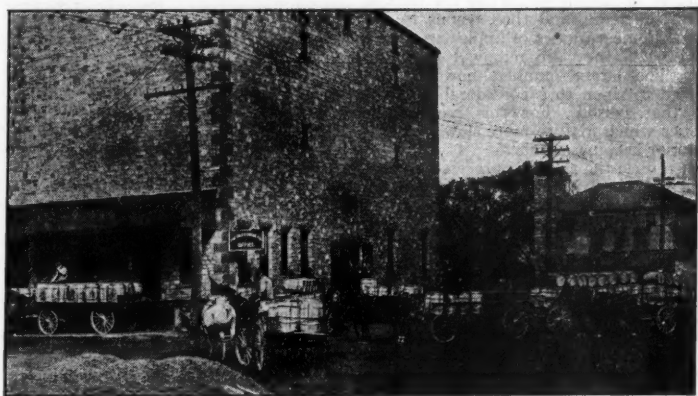
handling our big sellers. Exclusive territory given. We furnish you the capital; you furnish the team to carry the goods. Be your own boss in a pleasant, permanent and profitable business. Write at once for full particulars, giving age and occupation.

THE DUOFORM CO., Dept. 15 NORTH JAVIA, N. Y.



WOULD \$150

MONTHLY as General Agent for \$100,000 corporation and a FORD AUTO of your own. FREE, introducing Stock and Poultry remedies, Dips, Disinfectants, etc. Interest you? Then address Royoleum Co-Operative Mfg. Co., 26, Monticello, Ind.



Storage house for fruit in the Rochester, N. Y., district, showing the loads just arriving. Cold storage has done much for the fruit grower and farmer. For instance, in old times when Bartlett pears ripened there was liable to be a glut on the market for they would not keep long. Now Bartlett pears are put in cold storage and kept there in perfect condition for several months, enabling double the amount of former years to be consumed.

by 3½ inches, a little larger than a postal card. I procured the services of a sign painter to make a drawing of my idea. A fine etching was then made of it at a cost of \$2.00. I am now able to have as many cards printed as I desire at a small printing charge plus the paper charge. This figures a cost of about one-tenth of a cent apiece. They are printed on a light card board. These cards are used by the retailer, by displaying them on the box of apples. It draws the customer's attention to the fact that these apples are Winesaps in good condition and a fancy pack.

Establishing a brand or trade name for your products is a good advertisement. This may be done by stenciling your package or pasting an attractive lithograph on the end of the barrel. Don't keep your light under a bushel. Grow and pack your product so you will be proud to have your name on it.

Read "Bees, Poultry and Fruit" on the inside back cover of this number.

York State Apple Buyers Show Caution

Apple buyers are operating cautiously in the western New York district. Dealers here say they have made no purchases of winter apples and allege that they know of no deals, says the Packer.

Up state, however, it has been reported that sales of both fall and winter apples have been made at \$2.50 per barrel for grade "A." The only buying of lower grade fruit has been by cider mills and evaporators. Rochester dealers who were interviewed this week said that they believed grade "A" Baldwins ought to be bought between \$2@2.50, as selling conditions this year would be similar to those which prevailed last year. Their experience last season showed them that it was impossible to make any money after paying storage and other charges if the fruit cost them more than \$2.50 per barrel.

Owing to the damage that has been done this season by fungus, scab and insect pests, there are going to be many undergrade apples. Most of these will be handled by

SKUNK Highest prices paid for skunk, mink, fox and all raw-furs. Write for price-list, E. T. Sherman, Dept. 26, Whitman, Mass.

PROTECTION BY SPRAYING MYERS WAY OR

WHICH?

TREE DISEASE AND POOR FRUIT OR

It will soon be time for Fall Spraying. Get your orchards and fruit trees in prime condition and they will require but little attention next spring. Destroy scale and similar diseases by spraying MYERS WAY, and have healthy trees that will produce high grade fruit next season. Get acquainted with

MYERS

SPRAY PUMPS & ACCESSORIES by asking for a copy of our 64 page Catalog showing complete line of Myers Easy Operating Patented Cog Gear Bucket and Barrel Spray Pumps for Hand use and Power Equipments with Automatic Pressure Controller for gasoline engine—All styles, large or small, are dependable, proven and guaranteed. Write today.

F. E. MYERS & BRO.
NO. 150 ORANGE ST.
ASHLAND, OHIO.

HANDY OUTFIT FOR GENERAL USE

WINTER STAGE SAN JOSE SCALE



Oranges, Grapefruit and Winter Vegetables

Money Crops in Florida

From two acres of cucumbers, L. A. Morris, of Florida, realized over \$2,000.00 in a season.

George Koplin, of Florida, in a normal year made net \$4,022.01 from seven and one-half acres of oranges and grapefruit.

These were above the average yields, yet hundreds of others have done almost if not quite as well. Fruit and vegetable lands in Florida can be bought at fair prices.

The latest official figures show a citrus fruit crop in Florida of 8,947,335 boxes from 64,215 acres, valued at \$11,479,223.00, average \$178.76 per acre.

In the same year, State statistics showed an acreage in winter vegetables of 91,537, the crops valued at \$13,185,904.00, average return per acre \$144.05.

Compare these average figures with average returns per acre in other sections; the average value of all farm products in Florida is \$108.00 per acre.

Good home markets—the last official report showed 5,795 manufacturing establishments in Florida; capital invested \$77,061,149.00; average number of wage earners 89,373; total wages paid \$49,148,452.00.

General farming, grains, grasses, sugar cane, rice, cotton, live stock, dairying and poultry are profitable in Florida; also avocados, figs, peaches, plums, persimmons, pecans, etc. Climate delightful all the year, free from extremes. Cool breezes from Atlantic and Gulf sweep the State at all seasons. Good churches, good roads, good schools, hospitable and up-to-date people.

Plenty of good land yet in Florida, cheap. Write to any of the addresses herewith for facts about the State:

BOARD OF TRADE, Bradentown, Florida
BOARD OF TRADE OF BREVARD COUNTY, Titusville, Florida
BOARD OF TRADE, Dade City, Florida
BOARD OF TRADE, Fort Myers, Florida
BOARD OF TRADE, Fort Lauderdale, Florida
CHAMBER OF COMMERCE, Jacksonville, Florida
CHAMBER OF COMMERCE, Miami, Florida
BOARD OF TRADE, Ocala, Florida
BOARD OF TRADE, Orlando, Florida
BOARD OF TRADE, West Palm Beach, Florida

Copyright, 1916, By "Florida First" Commission

FLORIDA



Apple storage house near Rochester, N. Y. These massive stone, brick or cement buildings are large enough to hold from 50 to 100 carloads of apples. The usual price paid by fruit growers for the privilege of storing for from four to six months is 50 cents per barrel for apples or pears

Farm Department

The husky, rusty rustle of the tassels of the corn,
And the raspin' of the tangled leaves, as golden as the morn;
The stubble in the furrows—kind o' lone-somelike, but still
A-preachin' sermons to us of the barns they grewed to fill;
The strawstack in the medder, and the reaper in the shed;
The hoes in their stalls below—the clover overhead!
Oh, it sets my heart a-clickin' like the tickin' of a clock,
When the frost is on the pumpkin and the fodder's in the shock.

Fall Days in the Country

A mellow haze is on the hills. The air is sweet and cool and invigorating. Blackbirds piping up from the fields at dawn begin their journey southward. Wagons creak along the roads laden with their orchard treasures. Farmhouse and barn are at peace under the bright sunshine that gilds but no longer warms. It is that sentinel period dreaming between the outposts of retreating life which is summer and advancing sleep which is winter. Autumn days! says New York "Globe."

Apples—they belong to autumn days; or all things autumnal they are the essence Baldwin, a brave name; Winesap, the mouth waters at the sound; Grimes Golden, sturdy words; Pippin, York Imperial and Ben Davis, Jonathan, Greening and Rome Beauty—cognomens all that have a wholesome ring, apples that crush fruitily upon the tongue.

It is autumn in the country. Autumn. But, then, this is the city. Oh, well, there is no ban on dreams.

Burying Apples

Burying apples was quite a common practice when I was a boy and I used to help my father do this work occasionally, but we did it only when we had not sufficient storage room to keep as many as we wanted, as is the case with the subscriber referred to. Some of our neighbors buried a great many more apples than we did and usually found the practice very satisfactory. At that time the Russet apple was the favorite for burying. I have heard apple growers claim that burying greatly improved the flavor and quality of the Ben Davis, but have never buried any of them. It certainly can stand a whole lot of improving and if I were growing them they would be the ones I would bury.

We would select a nice dry place on high ground and dig about a foot deep as large a space as we wanted. This was covered with a thick layer of straw and the apples piled upon it and a heavy layer of straw put over them, then covered with a light layer of dirt. When real cold weather came more dirt was added. I preferred not to have the apples freeze, although I have known them to be frozen solid through the winter and if they were left undisturbed until the frost came out of the ground in the spring, they would come out in good condition. But they would not keep long after being removed from the pit. In fact this is generally the condition of all buried apples.

If I were burying apples now I would substitute leaves for straw. I believe that with a heavy layer of leaves under them and a thick covering of leaves over them apples could be kept near the freezing point all winter without freezing. I have not used them for this purpose but I have found leaves to be the best article I ever used to prevent freezing. The ground freezes very little if any under a heavy layer of leaves in the woods.—Farmer's Guide.

Green's Fruit Grower Co.: For years my father took your good paper. Some of my pleasantest memories of the "old farm" are of the beautiful grapes picked from vines, obtained as premiums with Green's Fruit Grower.—L. W. Plager, N. Y.

Gasoline Trucks for Fruit Growers

For hauling large quantities of produce or fruit any great distance, the favorite plan seems to be to hire the job done. In one instance, Mr. George Smith, of Middlesex County, N. J., has an orchard about 40 miles from New York City, in a section with very poor railroad facilities, says Pennsylvania Farmer. In the peach sea-



Photograph of a ditching machine at work near Rochester, N. Y. There are several forms of these machine diggers. A notable feature of this machine is the cutting of a very narrow trench for the draining tile.

son, he may put up 200 or 300 crates a day. They are hauled to New York in a hired seven-ton truck, which comes for them about 9 o'clock at night and gets to New York before the 2-o'clock market. This plan saves him the trouble of hauling the fruit to a railroad station, enables more fruit to be put up by the same gang than would be the case if it had to be hauled to the cars, and does away with icing charges and a great deal of uncertainty of delivery. The cost is exactly the same as the railroad charges alone would be.

In the Lebanon peach district of New Jersey, an association of growers hires a truck for the forty or fifty-mile haul to New York in a similar manner. The distance these great trucks will travel is surprising. I have known them to come within twenty-miles of Philadelphia, load up with sweet corn in sacks and haul it to New York—a distance of seventy or eighty miles. The shipping and marketing problem is the biggest thing before the fruit grower and truck raiser today. Hauls are made over improved roads which are too long for horses, even if they were not slow. With railroad facilities not always of the best, the motor truck is coming in rapidly as a solution of the problem, and is bound to fill a very large place in the future.

Horse not Useless

Naturally on occasions like a horse show to which thousands of owners or lovers of horses are attracted, the question of the role the horse is still to play in civilization is more or less discussed, says "Post Express." It was easy to find groups in which the opinion was put forth with confidence that there will be more attractive equipages and more beautiful saddle horses on our streets ten years from now than there are today. It is not improbable that the move-

ment which tended to retire the horse and supplant him by a machine has reached and passed its height and that a reaction has been for some time under way. Interesting in this connection was the prediction made a year ago by the celebrated electrician, Steinmetz, that within a decade there would be very few internal combustion vehicles on our streets and that machines as pleasure vehicles would have largely disappeared. His idea apparently was that electricity is to drive out gasoline as the burden-carrier on highways and farms and that society will seek utility rather than pleasure in such carrying machines.

How the Apple Turns Ripe

Although the apple is easily the most important of the fruits of its class, there is little wide-spread information in regard to the chemical changes which attend its ripening. The starch content reaches a maximum in midsummer while the fruit is still on the trees, and then begins to decrease. Some varieties of apples are ready to eat when they are removed from the trees. The larger number, however, are expected to ripen to a considerable extent after that period. For this reason, the varieties which mature more slowly exhibit a superior keeping quality.

When once the ripening process has been completed, the fruit tends to become soft, mushy or over-ripe, and usually at this or some preceding stage, organisms of decay gain entrance to the tissues and the fruit rots. In the absence of infection with any germs of disease or decay, the fruit loses water and shrivels up into a withered dry mass. Changes of this character go on, no matter whether the fruit remains on the tree or is picked off. Growth ceases and chemical changes ensue which result in the development of characteristic odor and flavor and later in the disintegration of the flesh of the fruit.

The object of the storage or preservation of fresh fruit so that it will be available beyond its natural "season" is really to slow up the ripening process and so to prolong its period as much as possible. That temperature has an important influence on the rate of ripening is a familiar experience.

Beyond this little has been appreciated in regard to the changes actually involved. It has even been believed that micro-organisms are in part responsible, though in the light of our modern knowledge of biochemical changes in plants it is more reasonable to ascribe an influence to the presence of "ripening enzymes."



The friendly horse is ever an object of interest on the farm. He knows every member of the family, particularly that individual who approaches him occasionally with an apple. All farm animals are apple eaters, but the horse particularly seems fond of apples and will bestow his affection upon anybody who has in his pocket a few apples for the pet horse.

The Shifting Corn Belt

At one time the belt stretched across Iowa, Illinois and Indiana, and then it shifted, or was extended, to certain parts of Missouri, Kansas, Nebraska and South Dakota. There it remained stationary for a period and then resumed its travels, going South into Louisiana, Tennessee, Georgia, Alabama and Texas.

But like most belts it did not long remain still and has now migrated to the Northwest, to Oregon, and that state, which is so rich in scenery, fruit, timber and political nostrums, is letting the world know about the latest shift. Of course, when the term corn belt is used, it does not mean the nation's center of corn production, but is intended to include those sections which rise far above the average in bushels per acre raised.

And where the corn belt is, there is rural prosperity. At least, the farmers' prospects of buying new automobiles are considerably increased.—Brooklyn "Standard-Union."

Sunflowers Save Life

The sunflower is cultivated to a considerable extent in central Russia, where every part of the plant is put to certain economic uses. The discovery of the extreme lightness of the pith of the stalk has essentially increased the commercial value of the plant. This light cellular substance is now carefully removed from the stalk and applied to a good many important uses. One of its chief uses is the making of life-saving appliances.

Cork with a buoyancy of one to five, and reindeer's hair with one to ten, has been used; the pith of the sunflower has a buoyancy of one to thirty-five. The latter can be used advantageously in the construction of boats and life-preservers. A sufficient quantity can be worn on a person without any inconvenience. The pith of the larger sunflower stalks is used extensively as a substitute for other materials formerly employed in making moxas for cauterizing purposes.

"Josh," softly remarked the good woman, "do you know that next Sunday will be the twenty-fifth anniversary of our wedding?"

"Ye don't say so, Maria!" responded Uncle Josh, pulling vigorously on his corn-cob pipe. "What about it?"

"Nothing," answered Aunt Maria, "only I thought maybe we ought to kill them two Rhode Island red chickens."

"Say, Maria," impressively demanded Uncle Josh, "how can you blame them two Rhode Island red chickens for what happened twenty-five years ago?" from "Bago-logy."

Ten Acres Enough

It is conceded by the Michigan urban schoolmaster that not one man in 1,000 in the United States could support a family on ten acres of land, although thousands of families in France and Denmark produce enough for their immediate wants and are enabled to put by something for old age or a rainy day. In these countries, though, conditions are different from those in the United States. The wants of the people, trained for generations in the stern school of frugality, are modest compared with the demands of a city-bred family in this country, the members of which family know nothing of the systematic abstinence from luxuries which largely accounts for the apparent prosperity of the French or Danish small farmer.

One great, if not insurmountable, difficulty in the enforced training of city youths for intensive, small-acreage farming is the inherent dislike for what is regarded as the drudgery of farm life. It is fully recognized that farmers and their families have largely come to their own in this era of the automobile, the telephone, the free rural delivery and the tractor plow.

A New Source of Potash

Enormous growth in the cement industry, which has been developed to meet the demand for building material, now promises to solve another important economic problem—that of our potash supply independent of Germany.

In the manufacture of cement there is expelled into the atmosphere tons of dust from the smelters which with the fumes is carried by the wind and settles in a destructive sediment on all vegetation, buildings

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and objects in the neighborhood of the smelters. Now an invention made by Dr. F. G. Cottrell, of the United States Bureau of Mines precipitates the dust from the smelters and enables the saving of the potash contained in it.

Last year one large California cement company that had formerly been compelled to pay heavy damages for the dust distributed from its plant secured \$80,000 net profit from the potash recovered by the new process. It is now believed that cement plants at present operating in this country can secure a by-product of 100,000 tons of potash that has heretofore been worse than wasted, and that, as the cement industry enlarges, the greater part of America's potash supply can be secured from this source and at the same time reduce the cost of cement manufacture.—"Farm and Fire-side."

Harvesting in Syria

"During harvest time the fields are lively and picturesque; the entire family has a part in the work, the small children playing about among the sheaves and even the babies are brought into the fields. A large toothed sickle is employed by the reapers when the grain is long, but if short a smaller one is used, the edge being quite dull; so that it does not cut but simply uproots the grain.

"Destitute women and girls are allowed to follow the reapers and glean the fallen ears, which they tie into neat little bundles, dropping them on the ground as they go along, and these they gather up every evening and beat out the grain with a stick, just as Ruth did of old in the fields of Bethlehem. During the reaping period what the Bible calls 'parched corn' is made in almost every field. Some wheat not fully ripe is cut down and set on fire, the straw only being consumed. The roasted heads are rubbed between the hands and the chaff winnowed out in the wind. Without further preparation, this roasted wheat forms one of the common articles of diet of the reapers. Undoubtedly such was the 'parched corn' which Boaz reached to Ruth.

"Threshing by the primitive methods employed is the most tiresome task of all the fellah's round of toil."

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C.E. Brooks, 219 Brooks Bldg., Marshall, Mich.

Trees for the Roadside

It is very encouraging to note the new and increasing interest shown everywhere by farmers and fruit growers in planting trees along the highways and roads. As we go through the country and view the results of planters who did their work well, in this direction forty or fifty years ago, we are inclined to pay a tribute to their memory, to praise their foresight and public spirit, and to say what a blessing it would be if more had engaged in similar work.

There is no question as to the advantages of road planting. We all know what it is and we should do our share as promptly as we can. Plant good trees of the right kind far enough apart, and take care of them, at least while they are young, and you will be repaid a hundredfold.

The Peach Orchard

Generally speaking, a peach orchard should be tilled throughout its entire life, beginning with the first season after the trees are planted, says "Indiana Farmer." If, for the sake of economy or for other reasons, it is impracticable to work the entire area between the trees, it is usually feasible to confine the tillage for the year first or two to a relatively narrow strip along each row. But the width of the tilled strip should be extended each season and by the third year the entire surface should receive attention. By that time in the life of a peach tree the roots are extending beyond the spread of the branches and the entire space between the rows, where the trees have been planted the usual distances apart, is rapidly becoming filled with small rootlets and root hairs through which moisture and plant food in solution are taken up. The root development of a peach tree growing in Virginia was studied by the Department of Agriculture, and the spread of the roots was traced thirty-six feet, seventeen feet on one side and nineteen feet on the other.

No arbitrary rules for filling an orchard can be given. But if a grower keeps in mind the objects of tillage and understands the principles involved there should be little difficulty in deciding upon a rational plan of procedure.

"Thorough tillage" does not mean the same to every grower. To one it may consist of plowing the orchard in the spring and harrowing it once or twice later in the season; to another, who has a very high estimate of tillage as a means of preventing the evaporation of moisture from the soil, it may mean going over the orchard with some tillage implement twenty or twenty-five times during a dry season.

In general, the orchard should be gone over with some kind of a tillage implement often enough to keep the soil thoroughly light and loose, or, in other words, in the condition of a dust mulch, for a depth of at least three or four inches.

Planning a Fruit Farm

Considering that an area of from twenty-five to thirty acres is available for the new fruit grower's use it is a good plan to begin by planting only about one-third to one-half of this acreage to fruit trees the first year, says the "Farmer's Guide."

One of the usual objections offered for not starting the fruit business is the fact that it takes too long for the trees to yield and for returns to be realized on the money and labor expended. While this is truly an objection to the business still it is not so serious but what there are ways of getting around it. If there is a ready market for small fruits, plant strawberries, raspberries, etc., between the rows of trees and thus get immediate returns from the land that must be cultivated anyway for the benefit of the young trees. If possible to take care of it as well as should be done, a number of dollars can be obtained above expenses by entering into the garden business to some extent, growing a rather large amount of a few of the most profitable crops rather than a little of everything. A few hives of bees can be cared for at little expense. There are dozens of other ways of materially adding to the returns during the first few years that will present themselves to the fruit grower as time goes on, if he will only be on the lookout for such opportunities and ready and willing to make the best of them. Then, when the trees do begin to yield the money returns will come in doubly fast and the owner will surely feel satisfied and glad that he bought the place when he did.

Orchard Notes

Written for Green's Fruit Grower by
Jennie M. Buckley, Indiana

During the last of November we cut the scions for grafting this spring, which were packed in a box of damp sand in the cellar, where they will stay until some date in May when conditions are favorable for the work to be done.

The "grafter" who does this annual stunt for me always raises an objection to the scions used, but as I pay him good money for his good work I feel that I should be the one to have the choice of material used.

I prefer the water sprouts from the apple trees for grafts because they are more vigorous than sprouts from the limbs and much less apt to be infested with scale.

Some weeks ago quite a gathering of horticulturists attended a lecture given by the professor of agriculture at the high school building. The subjects handled dealt with spraying, grafting and pruning, and the professor advocated the using of water sprouts in grafting for the same reasons I have given.

I think pruning one of the hardest subjects of horticulture to understand thoroughly or clearly. There was quite a class of us at the agricultural college and all the students seemed to agree thoroughly with the professor's method of pruning and yet, when some of these same classmates commenced farming for themselves the German students invariably pruned their apple trees so they were low topped, broad and branching while the young English farmers trimmed the trees narrow and steeple topped.

On our farm are two apple trees of the pioneer orchard planted in 1833. Of course no nurseryman of today could name these old-time apples with their excellent flavor and good keeping qualities.

They were known as the house apple and "paling" apple in those early days, the last mentioned received its name from the tree standing near a new "paling" fence which was the joy of its owner's heart.

The apple crop was immense in sections last season throughout Indiana, but the price has not paid for the hard work in the orchards last fall. We have sold to several of our local merchants for \$1.25 per bushel, but that still left the bulk of our crop on our hands as the larger cities offered no market to justify one in shipping.

The last of March we sorted the apples in the cellar saving a plenty for home use, and what we could trade out at the store, then made the seconds into cider which was of a most excellent quality as the apples were fully ripe and all indications of decay had been removed.

After the cider had stood for twenty-four hours we heated and skimmed it and put it in gallon bottles which were sealed and put in the cellar to be opened during harvest, when we feel sure the men will relish a drink of fresh cider though it was made in March.

We do not care for cider which contains mixtures for preserving it as it seems to lose the good cider taste after being doctored.

The Old Stone Wall

Written for Green's Fruit Grower by
Mrs. Wallace H. Judkins, Maine

To childhood days, my thoughts go back,
And memories sweet of all;
But, one that seems to linger most,
Is the old stone wall.

From an old, old country road,
There is the old time lane;
With the old stone wall on either side;
Many years have been the same.

In childhood days I remember,
Of having all kinds of sport;
And of using the old stone wall,
For ours and the enemy's fort.

Instead of new-fangled fences,
In style and up-to-date;
There is still the old stone wall,
That surrounds the old estate.

It surrounds the dear old homestead,
Where many were born and reared;
And to many generations,
The old place is endeared.

In many homes we will live,
In many we may call;
But none will ever seem the same,
As the one with the old stone wall.

Clean Up!

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THOUSANDS MEN AND WOMEN WANTED for Government Jobs. \$75.00 month. Steady Work. Short hours. Common education sufficient. Write immediately for free list positions now obtainable. Franklin Institute, Dep't R147, Rochester, N. Y.

A man in Sussex who owns a number of horses has a great reputation for skill in the treatment of them. One day a farmer who wanted some valuable information approached the horse owner's little boy and said:

"Look here, my little man, when one of your father's horses is ill, what does he do?"
 "Do you want slightly ill or seriously ill?" asked the boy, cautiously.
 "Oh, seriously ill," said the farmer.
 "Because," said the child, "if a horse is only slightly ill he gives it medicine; but if it is seriously ill, he sells it."—American Boy.

The Right of Way

By VINGIE E. ROE, Copyright, The Frank A. Munsey Co.

Within the private office of a railroad president, the great man himself had said to Darnell:

"I need the best man I have. You are that man. Down in a forgotten bit of Southern backwoods there lies a small tract of land which is holding at a standstill the progress of a new and important branch of the road. Some antiquated fossil whose squatter cabin stands squarely across the right of way has baffled Hastings and Comstock. Now, you are to get that right of way. Get it!"

So Darnell was here, astride a sorry horse, hired from the official factotum, who seemed to be the only human being amid the unspeakable desolation of the slashland station where a train had left the stranger the night before.

He had come through five miles of tall, sweet-scented gum-woods, splashing in the shallow water that underlay them, thumping slowly over corduroy. Ahead of him lay the clearing that had caused the trouble—a lonely "deadenin'" whose bleached skeletons reared out of a shabbily plowed and planted field of sickly corn. A two-room log cabin, with its roofed gallery-way between, stood across, and tilted back against it sat the squatter, old Pap Riker, his aged white head uncovered in the sun. As Darnell rode up, he rose on long, shaky old legs, proffering a welcome as simply courteous as it was sincere.

"Mornin', stranger! 'Light! We are proud ter hev ye. Gimme yer nag. Easter!" he called. "Take hit ter pastur', chile."

A tall girl, lithe and muscular, clad in a scant garment of faded homespun, came out and took the rein. Darnell went straight to his point, once he had accepted the splint-bottomed chair which a gaunt woman, typical of the backwoods, had brought from the cabin at sound of a stranger's voice.

"Mr. Riker," he said straightforwardly, "I'm here to talk business with you."

"Wait ye a while, friend," broke in old Pap kindly. "Ye hain't e't yet."

So Darnell waited. The old man was an eager listener, and in the sunny hour that followed he talked of many things out in the big world—things that filled the seamed old face with wondering amazement. Presently he sat down with the family, at a rude table in the cool gallery-way, to such a meal as he had never eaten in his life—hoe-cake baked in the ashes, fried chicken and buttermilk.

It was not until once more they sat outside the cabin, shady now, that Darnell took up his point. Pap Riker was tilted against the logs; the silent woman sat, elbows on knees, on the long log that served as a step; and the girl Easter leaned quietly against a post that held a great gourd-vine. Easily, tactfully, taking compliance for granted, the young man wove a picture of the mighty railroad, spread like a web of iron lace over the land, benefiting the whole country, needful, imperative, held suspended in its work by one man whose small holdings lay across its way.

Pap Riker's blue eyes, calm as the spring sky itself, looked off across the "deadenin'". "Hit air too bad, stranger," he said with an air of real distress, "but I cayn't do hit."

Darnell was silent a moment.

"If not for the good of the many, then for this," he said. From an inside pocket he took the earnest of the great man's *carte blanche*—a roll of bills whose size and denomination told plainly the importance of this seemingly worthless tract of land. "See," he said, flipping open the end of the sheaf, "this for your old days—the sights and comforts of the world, a better chance of life for your daughter." At that the old man winced a bit, with a wimple of distress across his face. "A fortune, and it is yours!"

Darnell leaned forward and laid the bundle on the threadbare knee. For a moment he did not breathe. Success meant a great deal to him. Then Pap Riker reached out a trembling hand and touched the roll.

"Gosh!" he said wonderingly. "The price o' the hull slashlands!" His eyes were full of something that was half incredulity and half a sort of fear. "Easter, chile, come here an' heft hit. Ye cayn't say ye hain't felt yer weight o' gold!"

The girl rose silently, and took the roll

in her strong brown hands. The mother sat still on the log step.

"Shall I leave it with you, or would you rather I put it in bank for you?"

Darnell was searching among some papers for the deed he had brought along. Gently the old man laid the bundle back upon his knee.

"Take hit along, stranger," he said. "I hain't no call fer gold."

Darnell sat without a word. Amazement stilled him like a drug.

Day after day saw him at the cabin. From every side and angle he approached the old squatter. It was as unavailing as wind against a rock. Yet there was an undefined charm about the forsaken "deadenin'" and its simple tenants that held him long after he knew that amicable arrangement was impossible.

Then came the thought of the girl. Of late Darnell had come to go with Easter to fetch his nag. The little walk through the sweet woods behind the cabin was strange and pleasant. She walked beside him, silent with the silence of her kind, yet straight and easy, unconscious of herself. Darnell talked to her and regarded her sturdy beauty. Strange thoughts, half formed, flitted through his brain. She was a marvelous woman, though in many ways she reminded him of her father.

This evening he decided to approach her. When they reached the ramshackle bars of the pasture, Darnell paused.

"Miss Easter," he said gently, "you are my last hope. I have tried every argument to move your father, and now I am going to ask your aid." The girl faced him wonderingly, her hand on the rail. "It is imperative that the company shall have this tract of land. We have offered many times its worth for an amicable adjustment. But a railroad, you know, has other legal methods. What it must have and cannot buy, the law condemns and gives to it at an appraised value. I couldn't bring myself to tell this to your father; but he will have to give up his opposition sooner or later. Can you not persuade him to do so now, for his best interests?"

Darnell reached out suddenly and laid his hand on hers. Her eyes had grown wide and dark.

"The law?" she said. "Will hit take hold o' pap?"

Darnell felt a rush of anger, a sense of helpless guilt.

"It is the law," he said quietly. With a gesture of quick abandon, the girl threw her body against the rails, laid her face in her arm, and broke into tears. Her shoulders heaved like a man's. Darnell, abashed, stood still. The rose of the dusk was silvered by a high, white moon. A wood-bird called from the sweet gums. Presently Easter raised her head.

"Ye don't know why, o' course," she said, and her voice was husky. "Thar's a reason, stranger. Hit'd break the ol' pap's heart to tell ye, but his right ye should know. Come with me."

She turned from the fence along a tiny path, dim and nearly covered with wild blackberry vines; and Darnell, wondering, followed her. Into a depth of growth almost impassable they stooped and threaded to the left, then turned back toward the clearing. At foot, the path was worn smooth with much treading. Presently the darker dusk lightened, and they came out in what seemed a small, high clearing where the moon streamed down unhindered. Directly in the center there loomed an object tall as the girl's head, and draped in weathered sacking. Easter stepped forward and lifted the old rag carefully. There stood revealed in the pale light a rough, hand-hewn stone.

"Read," she said simply. "Hit wuz before I war born. I'm all their sonchile. There warn't no more boys."

Darnell stooped down in silent amazement, and read, cut deeply and with infinite care, by hand—though at places it was as if the hand had trembled—these words:

JIMMY JOE RIKER,
 Born 1868—Hanged 1886.

With a gripping in his throat that hushed his tongue, Darnell straightened up, his hat in his hand. In silence the

girl gently replaced the covering. The man stood still, looking blankly toward the rustling, leafy wall of the clearing, behind which lay the cabin; and presently he realized that the tiny glade, with its hidden tragedy, lay directly in line with it—in the very path of the right of way.

In silence he followed out through the tangled vines, got the sorry nag, and mounted. From the saddle he leaned down and gripped the girl Easter by her firm young arm. The moon picked out her tragic, half-frighted face.

"You were right," he said huskily, "in showing me."

Then he rode away, skirting the lonely "deadenin'".

A week later Darnell sent a telegram to the great man, which said:

Can't get tract. Graveyard. Have secured right of way around.

The Peach Crop of 1916

The western peach crop for 1916 was not over large. The peach crop in western New York, which seems to be one of the largest in the country, has been good but not so large as last year. Both western and eastern peach growers are securing much higher prices than last year with less expenditure for labor and freight, therefore peach growers are far better satisfied with the results of peach growing this year than they were in 1915 when the crop was almost phenomenal. The new method of joint management between the railroads and the shippers of peaches inaugurated this year has proved satisfactory and has greatly aided distribution. Hundreds of carloads of peaches which were intended by the producers to go to Pittsburgh or Philadelphia or other large cities were withdrawn from shipment to those points and sent to other cities where the demand was known to be greater and where the supply was smaller. The same procedure or co-operation will be extended to the shipment of apples and other fruits during this year and years to come. If fruit growers can avoid errors of shipment, that is the shipment of carloads of fruit to points where the supply is already ample, you will hear little of glut in the fruit markets this year to come.

More than 800 carloads of peaches were shipped from the Rochester, New York district in one week. There were 1,000 cars less of peaches shipped in 1916 than in 1915.

Good Advice

If the concern where you are employed is all wrong, and the Old Man a curmudgeon, it may be well for you to go to the Old Man and kindly tell him that he is a curmudgeon. Explain to him that his policy is absurd. Then show him how to reform his ways, and you might offer to take charge of the concern and cleanse it of all its secret faults.

Do this, or if for any reason you should prefer not, then take your choice of the matter. Get out, or get in line.

If you work for a man, in heaven's name, work for him!

If he pays you wages that supply you your bread and butter, speak well of him, think well of him, stand by him and stand by the institution he represents.

If put to the pinch, an ounce of loyalty is worth a pound of cleverness.

If you must villify, why, resign your position. But, I pray you, so long as you are a part of an institution, do not condemn it. Not that you will injure the institution—not that—but when you disparage the concern of which you are a part, you disparage yourself.

Another War Trick

A Washington paper tells us that vast quantities of oats to be used as feed for the allies' horses at the front are being shipped from this country, and recently, small and sharp pieces of steel, shaped and colored to look like oat grains, were found in the oats, and feeding the oats thus mixed almost certainly killed the animals to which they were fed. How and where and when the bits of steel were mixed with the oats is another one of the war mysteries, but it adds another to the means of injuring the enemy that were never heard of before.

Read "Bees, Poultry and Fruit" on the inside back cover of this number.

By George

The dew blackberry many years. Lili upon last they hat from the trail on the blackberry it receives which is c wild state new plant blackberry suckers.

The fruit that of the earlier than its culture sections. America, a origin. The introduced today the dewberry i merical sea Jersey.

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Green's Fruit Grower

Dewberry Culture

By George M. Darrow in Farmers' Bulletin-728.

The dewberry is closely related to the blackberry, having a root that lives for many years and a top that lives only two years. Like the blackberry, it bears fruit upon last year's canes, which die soon after they have fruited. It is distinguished from the blackberry in having canes that trail on the ground, while those of most blackberries are upright. From this habit it receives the name "trailing blackberry," which is commonly applied to it. In the wild state the canes of the dewberry form new plants by rooting at the tips, while blackberries propagate themselves by suckers.

The fruit of the dewberry is similar to that of the blackberry. Because it ripens earlier than the fruit of the true blackberry, its culture has proved profitable in many sections. The dewberry is a native of America, and all varieties are of American origin. The Lucretia was the first to be introduced into general cultivation and is today the principle variety grown. The dewberry is grown extensively on a commercial scale in North Carolina and New Jersey.

In regions where winter conditions are severe, the site for a dewberry plantation should be as well protected as possible from cold and from winds. In order to secure good air drainage, a site elevated above the surrounding country is preferred to low ground. However, it should not be exposed to drying winds or to other trying conditions.

Long hauls by wagons and jolting over rough roads will bruise the berries so they will not hold up well on the market. Therefore, the plantation should be as near local markets or a shipping station as possible.

The cultivated dewberry is grown on many types of soil. In its wild state it is found in open fields and pastures and by roadsides, especially where the soil is poor and the growth of grass and herbage is thin. In such locations its leaves can get more sunlight than where the soil is rich and the grass rank.

Cheap Paint

The following cheap mode for painting out-door structures is recommended by a contemporary: Make four gallons of paste of rye flour, like the paste used for papering rooms, and then mix in one gallon of common oil paint. This will cover as much surface as five gallons of paint alone. For the second coat add two gallons of oil, and three for the third. These three coats will last as long as three coats of oil paint. A good paint for brick is made of fresh lime-wash and sulphate of zinc.

That the "back-to-the-farm" movement is led by city boys is shown by statistics at the agricultural school of the Pennsylvania State College. Today the three large cities of Pennsylvania have more than 200 young men in the school. Some of these have never seen a farm, except at a distance.

Searching for Rare Fruits in China

Green's Fruit Grower has for several years been aware that Mr. F. N. Myer, the plant explorer of the United States Department of Agriculture, has been searching throughout the wilds of China as well as the habitable sections for rare or unknown fruits. Mr. Myer has returned to Washington after a three years' trip and has brought with him many fruits heretofore unknown in this country. His collection of seeds, roots and cuttings embraces nearly 3,000 varieties.

Among the large number of interesting, and what is hoped to be valuable novelties, as mentioned in the "Farming Business" publications are as follows:

The most important discovery probably was the jujube tree, which bears a heavy crop of a brownish fruit, which is delicious when fresh and when dried offers a confection very similar in taste to the Persian date. This tree is of particular interest to the department because it can withstand cold and drought and neglect. The section in which it is productive in China is a semi-arid belt where winter temperatures do not go much below zero Fahrenheit. This indicates that it would be of particular value to Texas, California, New Mexico, Arizona, southern Utah, and perhaps even

farther north. Already, several thousand seedlings have been grown at the Plant Introduction Garden at Chico, California, from the specimens sent to this country, and some of these have borne desirable fruit, which confirms the experimenters in their belief that this tree may contribute a new fruit industry to the sections indicated.

The wild peach discovered in China, and now brought to this country for the first time, is considered of great interest, although its fruit is not desirable. Investigation in its native habitat showed that the roots of this plant are not as susceptible as our native peach to alkali in the soil, while it will withstand cold and does not require much attention.

autumn days came that tree was loaded with a most bountiful crop of beautiful Satsuma plums.

Peaches are grown in England under glass, but no one thinks of doing it except with the kindly assistance of the bees.

A flourishing business has sprung up in recent years around our larger New England states, of growing cucumbers under glass. Of course bees are required, and Professor Gates of the Massachusetts Agricultural College at Amherst estimates the number of colonies of bees required to make these houses produce in this one state of Massachusetts alone to be three thousand a year.

Some years ago a gentleman in Virginia thought to make a fortune by raising pears.

cultural Society has made the statement that apples, where bees abound, will produce larger crops of fruit. The fruit will be larger, better colored, higher flavored, and keep longer.

Adam's Apple Found

Several years ago I was with a party which was doing some excavating just north of Babylon in Mesopotamia, says the Globe. We one day very unexpectedly unearthed a mummy. The scientists in the party after undoing the wrappings, discovered the body to be that of a man of the Semitic race, and, upon close observation, noticed that one of his ribs was missing, and as the place where the mummy was found was in or close by the vicinity known as the Garden of Eden, it was concluded that the body could have been none other than that of Adam.

This conclusion was further supported by the astonishing fact that in his right hand, he still held, in a state of perfect preservation a large green apple from which one fair-sized bite had been extracted.

Upon dividing the apple, I observed that the seeds were still white, which may have had something to do with his premature demise in the 130th year of his life.

This apple, which seemed to be of the variety known as "Newtown Pippin," must have been high on to 6,000 years old.—James C. Cole.

If these discoverers had searched farther they may have found the remains of the serpent that tempted our first parents. Naming the apple found the Newtown Pippins adds interest, for we had supposed that to be a modern fruit.

Pudding-Head Philosopher

A safe bridge is cheap neighborhood insurance.

After a candidate is picked, very often he is plucked.

Can a man be a good fisherman without being a good liar?

On the irrigated ranch something new is always cropping out.

When we know a man is square we like to have him 'round.

It is easier to raise chickens for meat than it is to hunt rabbits.

Digging bait is sometimes a more interesting job than fishing.

Federal investigation is easier on the beef trust than a sore back.

The success of a picnic depends upon the age of those who attend.

The man who rears horses should be careful not to make the horses rear.

Fifty cents a day for the militiamen will not hatch many soldiers a fortune.

The biggest job on Labor day is to parade all over town and get nothing for it.

It is better business policy for a politician to work himself than to work others.

We seem to lose sight of the fact that the soil scratcher man is also the architect of his misfortune.

A fellow never knows how much fun it is to stay at home and rest until he goes on a cheap Sunday excursion.

Motor trucking wheat to the mill at \$1.36 the bushel is more fun than stuffing fifty-four cent grain into five cent pig skins.—"Field and Farm."

The sense of humor "suffereth long and is kind; is not puffed up; is not easily provoked." Within its easy reach is the "soft answer that turneth away wrath." It is the first cousin of love. This earth would ride on springless axles without it.

Thou must be true thyself,
If thou the truth would teach;
Thy soul must overflow, if thou
Another's soul would reach;
It needs the overflow of heart
To give the lips full speech.

—Anon.

Bees, Poultry and Fruit

FRUIT GROWERS everywhere realize the need of bees if they are to grow good crops of high class fruit. They also know what a help a flock of poultry can be in keeping their orchards and fruit fields free from bugs and insect pests. In many cases they would be willing to pay, if necessary, to have these two valuable helpers on their farms. It isn't necessary, however, for both of these helpers pay their own way and with proper care will show a handsome profit besides.

An Ideal Combination

Realizing that a large number of our readers would like practical information along these lines, we have arranged with the publishers of the leading bee journal and poultry journal of the country to club their journals with Green's Fruit Grower, at a special low price.

Gleanings in Bee Culture

published at Medina, Ohio, is a handsomely illustrated magazine, devoted to bees and beekeepers, to honey and honey production, and to home interests. It is known throughout the world as **LEADER IN ITS FIELD**. It answers its readers' many questions. It saves the beginner from many blunders and disappointments. It gives first hand the experience of the leading minds in the bee world, and tells its readers how to get the most (in health, pleasure, and money) out of beekeeping. Whether you have one hive or a hundred you will want to read this first class bee journal. Regular price \$1.00 per year.

The American Poultry Advocate

published monthly at Syracuse, N. Y., is devoted to the interests of all practical poultrymen. It is helpful in all branches of poultry work to the beginner as well as the expert. Tells how to get eggs at the least cost, how to feed to get best results. No detail left out. It stands **SECOND TO NONE** in its value to poultry raisers. This paper will help you to success in the management of your poultry. Regular price \$.50 per year.

Green's Fruit Grower

will be better than ever during the coming year. Whether your subscription is expiring right now or not, it will pay you to take advantage of this special club. All subscriptions will be extended 1 year from their present expiration dates.

All Three Magazines a Year for \$1.00

Send Your Order Today to

Green's Fruit Grower Co.,

Rochester, N. Y.

Bees Increase Fruit Yield

At a recent meeting of fruit growers, J. E. Crane, a Vermont orchardist, spoke as follows on the relation of beekeeping to orcharding, says Rural Life.

Cherries are greatly benefited by the visits of bees. Many varieties of plums appear to be incapable of self-fertilization. I had some years ago standing in my garden a Japanese plum that had bloomed for several years, but had failed to produce more than a few imperfect plums. Suspecting the cause of the trouble I cut a branch from a Burbank plum, another from a variety of the same species and hung it up in this barren tree.

The sun came out and the bees flew freely that day, and when again the golden

He would plant only one very popular and productive variety, the Bartlett. For many years he cultivated with great care. The trees bloomed freely as they went under maturity, with no paying crop of fruit. The orchard went under a mortgage. The new owner continued the care of this unprofitable orchard until it passed into the hands of a third party, who said he knew nothing of growing pears and sent to the agricultural department at Washington to know the cause of this barren orchard. Professor M. B. Waite was sent down to investigate. He guessed that it required other varieties to fertilize the flowers. Other varieties were grafted in and the problem solved.

The secretary of the Missouri Agri-

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TODAY we are recognized as the leading "spot cash" buyers of brand new desirable merchandise at forced sales. Big manufacturers and merchants, seeking a quick outlet for surplus stocks, naturally turn to us for the ready cash. Their loss means your gain! We have our pick and choice at Sheriff's and Receiver's Sales, Big Auction Events and Liquidation Sales. And we sell as we buy—nothing but quality goods at unmatched bargain prices. Direct dealing with us means more than just a big money-saving—it means guaranteed satisfaction as to quality, prompt shipments and the fair, "square deal" treatment that has been the corner-stone of our business for the past quarter century.

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100 lbs. \$1.90
Standard Wire Nails in 100 lb. kegs. Sizes from 3d to 20d mixed. Order No. **\$1.90**
DC-30 Price
For 3d Wire Nails, Order No. DC-40. Per 100 pounds **\$2.65**
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Best Mixed Paint

\$1.27 Per Gallon
Harris high grade ready mixed house paint. Best formula on the market. Fewer gallons wear longer than any other. For House Paint, Order No. DC-127 100, per gallon **\$1.27**
For Best Barn Paint, Order No. DC-130, per gal. **64c**

Our special Fall "Clean-up" Lumber Bargain Price List, now ready, shows the biggest money-savings we have ever offered in good lumber for every building purpose. Mail the Coupon now! If you expect to build or improve a home, barn or farm structure of any kind, this Fall, it will pay you BIG to write at once for our wonderful FREE Building Material Book containing hundreds of tremendous bargains in Lumber and Millwork, only a few items of which we can show here. We have constantly available for quick delivery over 20,000,000 feet of brand new, high grade material in our yards here at Chicago. To reduce freight expense to the lowest possible charge we are equipped to make shipments direct to you from our main headquarters at Chicago, Washington and Jackson, Miss., depending on your location. This freight saving means many dollars of your money saved.

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98c

buys this good, substantial pine door 1 1/2 in. thick, painted or unpainted



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buys good fir window frames. All other sizes and styles priced proportionately low.



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buys 4-light glazed barn sash. Every desired size priced proportionately low.



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for this clear fir glazed heavy front door 1 1/4 in. thick. Other doors at like savings.



HARRIS BARN DC-220

\$433 This Harris

"Majestic" Barn is one of many up-to-date designs shown in the Harris Barn Book. Built time and again at a great saving. Contains every feature that experience has proved desirable in modern barn construction. Interior arrangement can easily be made a model of convenience—space saving and economy of labor in housing and feeding stock.

MAIL COUPON FOR Our FREE Model Barn Plan Book!

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20c per Rod

Hog Fence, Barbed Wire bottom. Order No. DC-140. 4 wire high, stays 6 in. apart. No. 11 gauge carbon wire top. No. 10 gauge intermediate line and stay wires.

Tubular Posts With Adjustable Clamps



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Special for November and December!

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Order Lot DC-1 for 1-3 Ply Ajax, per roll **38c**
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Furnished in sheets approximately 41-2 ft. long. Reclaimed, refinished and furnished with a coat of red mineral paint. Send length of your rafters and we will send sheets that will work to best advantage.

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Watts Corn Sheller

Complete, as shown with cob stacker and elevator. Light and easy running. Shells any kind of corn. Cap. 75 to 100 bushels per hour. Order No. DC-190 \$19.50. New only **\$17.00**



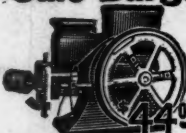
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Can't be beat for sturdiness, economy and simplicity. Special feature of grinding. Coarse, medium or fine. Order No. DC-125 \$125. 10 and 12 in. sizes priced just as low.



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A powerful machine of enormous capacity. 10 to 20 tons per hour. Cuts any kind of silage as fast as you can feed it. Order **\$110.00** No. DC-200. Price **\$110.00** Other sizes proportionately low.



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Greatest engine values ever offered. All sizes from 5hp to 65hp. Order No. DC-190. For 5hp at **\$44.00** our special price of **\$44.00** Can attached horse bursters.



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Install your heating plant now while material is plentiful and prices are very low. Our experts give you complete, simple instructions. Put your own plant in. Warm Air—\$55. Steam—\$124. Hot Water—\$184. Mail coupon for free Heating Book No. DC-144 now.

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Best White Enameled Cast Iron One-Piece Heavy Roll Rim Bath Tub 5 ft. long. Latest style nickel-plated trimmings—Fuller Double bath cocks for hot and cold water, nickel-plated connected waste, overflow and supply pipes. Order No. DC-160 \$16.50. Price **\$16.50**

Hog Troughs \$1.25 5 Feet Long

Strong durable troughs for hogs and cattle. Heavy galvanized steel painted black. Steel cross bars and legs securely riveted. Round bottom, easily cleaned. Order No. DC-240. For troughs 5 ft. long, 12 in. wide, **\$1.25** cap. 10 gals., each **\$1.25** 6 for **\$6.50**

Pipe-Fittings 4c PER FOOT

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